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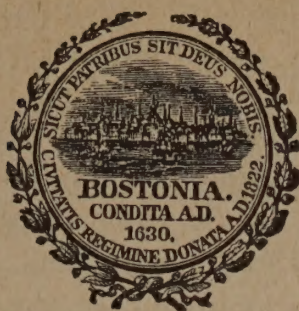
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CITY OF



BOSTON.

THIRTY-FIRST ANNUAL REPORT

OF THE

Trustees of the Public Library.

1883.

[A.]

The Trustees have the honor to present to the City Council their Thirty-first Annual Report, it being the fifth made under their Act of Incorporation, and containing details of the condition of the Library for the year ending on the thirtieth of April last.

The reports of the Examining Committee from the citizens at large, and the Librarian's Report, are embraced in this document.

The system of examination first adopted last year has been continued with equally satisfactory results. The collections of the Library are so extensive and various, and the work performed at the central institution and its branches is so widely diffused, that the time necessarily required to master the details and workings of the whole organization is obviously not afforded in the usual limited number of visits within the convenience of an annual committee appointed in the early spring of each year. The assignment of special subjects is within better control.

The general committee for the present year consists of John G. Blake, M.D., Augustus Lowell, Esq., J. Audley Maxwell, Esq., Richard Sullivan, Esq., and the Rev. Alexander S. Twombly. The scholars having in charge the examination of special subjects were Thomas W. Higginson, Esq., for the investigation of the valuable Parker Library; Professor Thomas S. Perry, who has continued and completed the survey begun last year of the French and German collections of the institution; and Prof. Wm. F. Apthorp, who reports upon the condition of the musical department. To these was joined, as required by the ordinance, a member of the Board, the position falling in turn this year to its President.

It must always be remembered that the functions of the committee are of the most independent character, and that the form and extent of its investigations are wholly under its own control.

It will be seen, from the report of the committee, that it has devoted a larger amount of time to the questions before it, than has usually been within the convenience of average committees. The suggestion made in the report, that the services of the committee should be retained for two years, is impracticable under the ordinance; but there is no objection to its appointment earlier in the library year, thereby giving the members an opportunity of larger familiarity with the daily work of the institution in all periods of its annual service.

The Trustees would invite particular attention to the portion of the report relating to "the popular circulating department."

In the special reports, the monograph of Thomas W. Higginson, Esq., upon the Parker Library, will be found to be thoroughly appreciative and valuable, as giving the first accurate description of this very remarkable collection. Professor Perry's faithful and continuous work, in reference to our French and German collections, brings the institution under large indebtedness for his thorough and discriminative examination in a field which few scholars in this country have so adequately explored. Professor Apthorp's examination points out the deficiencies in the musical library,—a collection originally formed in Germany, and slowly increased since, according to the means within the disposal of the Trustees. A full library of the best classic and modern composers is a most desirable element in this important branch of popular education. It is hoped that sufficient means may be provided to meet the necessities of the increased and widely extended culture of this civilizing accomplishment.

THE LIBRARY AND ITS WORK FOR THE YEAR.

The extent of the Library collections and their use by the public during the past year are herewith presented.

The aggregate number of volumes embraced in the Bates Hall collection is 267,216; in the Lower Hall, 38,164; in the branches, 116,736,—making a total of 422,116,—a net increase for the year of 17,895 volumes (of which 5,340 were gifts),—making the percentage of gain within a slight fraction 4.25 per cent.

The whole number of days on which the libraries were open to the public was 306.

The total use of the books for the year was 1,045,902,—an increase of 5,349 over the previous year. These were distributed from the various libraries, as shown in the following table:—

Name of Library.	No. of Vols. April 30, 1882.	In Use, 1881-82.	No. of Vols. April 30, 1883.	In Use, 1882-83.
Lower Hall	37,186	250,792	38,164	195,930
East Boston	11,038	95,974	11,263	100,940
South Boston	10,499	129,486	10,961	126,411
Roxbury	21,144	106,273	21,999	112,525
Charlestown	24,060	87,319	24,825	87,304
Brighton	13,139	27,444	13,190	28,257
Dorchester	11,332	54,485	11,910	67,558
South End	9,720	71,736	9,947	94,250
Jamaica Plain	8,602	49,722	8,976	49,137
West Roxbury	3,070		3,144	
North End			521	3,515
	149,790	873,231	154,900	1865,827
Bates Hall	237,736	167,322	249,440	180,075
	387,526	1,040,553	404,340	1,045,902

¹ In the totals of popular circulation, the issues of the Fellowes Athenæum (8,385 vols.) are included with the Roxbury Branch. The Charlestown and Brighton libraries having come into the possession of the City as single libraries, there are no present means of marking the use of the reference volumes in each collection.

The aggregates of the circulation for the past year demand especial attention; while the branches have either increased, or substantially held their own, in the distribution of books, the Lower Hall collection has experienced a very large diminution.

Yet the Lower Hall library never before contained so many books of popular interest, or so well selected to meet the wants of the very wide-spread classes of readers who have heretofore depended upon its resources for their reading.

But the uses of the Reading-room have increased. This obviously arises from the fact that this is the only room accessible to the public, on the lower floor of the building, which is moderately light by day, since the new structure, on the adjacent estate to the eastward, was erected. The waiting-rooms are now neither cheerful nor attractive to the visitors to the Lower Hall library.

Beyond this palpable fact there are grounds for the belief that the circulation of other large popular libraries has diminished during the past year. It is not difficult to explain why this should generally have occurred, nor why our own popular collections have suffered.

When, in 1878, the South-End branch was established in West Newton street, it found its readers in a community previously dependent upon the Boylston street library. When it was removed, in 1881, to a site within four-fifths of a mile from the main institution, and placed in pleasant apartments, among a reading population, its influence was more perceptibly felt. The popular libraries in the city proper issued last year to readers 293,695 volumes, against 322,528 in the previous year; but of the aggregate for 1882-3, 22,514 is due to the increase of the circulation at the South End, and 3,515 to the establishment of the North-End branch,—a branch which is expected to show much larger results in the coming year.

But, notwithstanding the decrease of circulation, as compared with former years, it is found that in the volumes now issued there is a larger percentage in science and technique, in voyages and travels, in history and biography, than was obtained in the year of the largest distribution from the Lower Hall. So that in proportion, as the work of the Library goes on, it accomplishes better results among its readers.

Another cause directly affecting the circulation of free libraries is to be found in the cheap reprints issued of popular novels, histories, biographies, travels, and science, which are within the means of every reader. When for a small sum of money one can purchase an attractive new book, why should one be dependent upon a library, which cannot reasonably have duplicate copies enough on its shelves to supply an immediately numerous and urgent demand? The books desired by the large body of readers are the new books. Failing to obtain these when wanted, it is the easiest possible thing to ac-

quire them at a trifling outlay, within the means of a moderate daily wage.

It is not strange that the issues of any popular library depend, to a great degree, upon its accessions of new and desirable fiction, — a branch of literature of growing importance throughout the civilized world. It attracts the attention of both sexes, of all ages. It has enlisted the services of authors of great talent, of wide knowledge of human life, manners, and social conditions; it draws pictures from ancient, mediæval, and modern history, and from barbaric and civilized races. From the simplest and most innocent forms of social condition it extends step by step through the varying shades of daily life till it reaches the most complicated forms of crime and immorality known to ancient or modern civilization. Within its wide range many readers can find the book which shall rivet attention, quicken the pulses, and exert either good or bad influence according to the previous moral training or general information of the individual.

But to a large library it presents grave questions. If duplicates of the newest fiction sufficient to supply the immediate demand are purchased, the shelves are filled with volumes which at the end of five years will be so much dead material. A few great novelists have written works that have lived and still live. But of the books of this description, which were read in one's youth, how few are attractive to the present generation! Every decade shows some new development in thought, invention, arrangement, and character, as society becomes more complicated. It does not seem to the Trustees to be a legitimate use of public funds to purchase any considerable quantities of duplicate books, for the sake of present popularity, which, in the space of five years, shall cease to find readers.

The delivery of periodicals at the Central Library and branches is recorded at 518,226, as against 492,090 for the previous year. Of these, 381,810 found use in the Boylston-street reading-room.

The number of volumes sent to the bindery during the year from all the libraries amounted to 13,261. The character of the work done has been fully up to the regular standard of the institution.

The records show a larger number of books lost than during the preceding year. There are gone from Bates Hall, 18 volumes; from the Lower Hall, 53; from South Boston, Dorchester, and Brighton, 1 each; from Roxbury, 4; and from Charlestown, 2, — making a total of 80 volumes missing, or one to every 13,074 loaned. From the East Boston, South End, and Jamaica Plain branches, with

an aggregate circulation of 237,380 volumes, every book has been returned.

The Trustees gratefully acknowledge the receipt of another gift of five hundred dollars, from J. Ingersoll Bowditch, for the increase of the Bowditch Mathematical Library. The accessions to this collection during the past two years have been most valuable and important, including complete sets of Crelle's *Journal für die reine und angewandte Mathematik*, in 93 vols. quarto; and of Liouville's *Journal de mathématiques pures et appliquées*, in 46 vols. quarto.

A NEW LIBRARY BUILDING.

The Trustees of the Library congratulate their fellow-citizens that the City Government has settled the question of the proposed construction of a new Library building. The steps which led to this most important result may be briefly told.

The first order looking to a new structure on the Dartmouth-street estate was passed Dec. 1, 1881. By this the Committee on the Public Library were authorized to consult the Trustees concerning a new Library building. No action, however, was taken under this order, as the City Government had not indicated by its action whether it intended to occupy the site presented for the purpose by the Commonwealth, or to acquire the additional land necessary for the structure, which a special act of the Legislature had authorized it to take. Preparation for the work had, however, been made, in the meantime, by the City Architect, by visits to and examinations of some of the newer library buildings in Europe.

The next step towards the removal of the Library to new quarters proceeded from a member of the Board of Trustees, who was also a member of the City Council. On the 9th of March, 1882, he introduced, with other orders, having reference to the High and Latin Schools, the following mandate to the Trustees of the Library:—

Ordered, That the Trustees of the Public Library be requested to report upon the fitness of the present High and Latin School Building for the purpose of the Public Library.

After a careful examination of this structure, and the employment of the services of Mr. Henry Van Brunt, the eminent architect, in making a separate examination and report, it was voted, on the second of May, one member of the Board dissenting, —

That the president be directed to report to the City Council, in response to their order, dated 10th April, 1882, that, in the opinion of the Trustees, the English High and Latin School Building, neither in part nor as a whole, is fit for the uses of the Public Library, together with the reasons of the Board for this opinion.

Mr. Whitmore, the dissenting member, gave notice of his intention to present a minority report.

In preparing the statement of reasons called for by the above vote, it was soon found that in order to show more distinctly what was not wanted, it would be necessary to draw plans which should show approximately what was wanted.

The services of the accomplished City Architect were engaged, and a set of drawings was made, as fully complete as the great press of his engagements in other city work would permit. The study of the plans of a great modern library for popular use presented questions never before fully met. In the limited time the most that could be done was to show how the largest and most convenient access to the public of readers and students could be accomplished; how the great library could be stacked; how special rooms of suitable size could be assigned to special libraries and art collections; and, lastly, how the arrangement of apartments could be most fitly contrived for the administration of the library. As a whole, it was concluded that the edifice to be erected on this basis, to meet the probable requirements of a century, need not occupy more than two-thirds of the land. This, in brief, was the plan proposed by the Trustees. No elevation of the structure was designed; the studies on light, air, ventilation, and fire-proofing could only be approximately treated, yet the main principles of the structure seemed satisfactory to the Trustees.

On the 1st August the President signed the report required by the order of the Trustees, and it appears in City Document No. 111, 1882. The minority report (City Document No. 111 B) appeared subsequently. After a series of delays these papers did not reach the City Council till its meeting of the 3d Oct., and were referred, on the 18th Dec., to the next City Government.

The next movement forward came from the Board of Trustees. On the 24th Feb., 1883, the following order and vote were offered, and unanimously accepted, and transmitted on the 26th, by His Honor the Mayor, to the Board of Aldermen, by whom they were referred to the Committee on the Public Library:—

Ordered, That the plans for the Public Library building, on the Back-Bay land, drawn by George A. Clough, and the estimated cost thereof

at \$450,000, as contained in City Document No. 111, of the year 1882, be, and they are hereby approved.

Voted, That the Trustees recommend to the City Council to take the land fronting on Dartmouth street and St. James avenue, and adjacent to the lot given by the Commonwealth to the City of Boston, for a Public Library, under the provisions of Chapter 143 of the Acts of the General Court for the year 1882.

On the 28th February, a public hearing was given by the Committee on the Public Library, for the purpose of listening to any statements of the Board of Trustees, or other friends of the institution, in favor of the proposed action of the City Government, and also to hear any objection thereto. At this meeting the President presented a statement of facts; and speeches in urgency of immediate action were made by Colonel Jonas H. French, Hon. Mellen Chamberlain, Hon. Charles Levi Woodbury, Mr. Henry P. Kidder, Rev. George E. Ellis, D.D., Rev. Joshua P. Bodfish, Mr. George B. Chase, Mr. Edwin P. Seaver, and Henry W. Williams, M.D. Mr. William H. Whitmore made remarks in opposition.

On the 5th March, the Committee on the Public Library, through their Chairman, Alderman Whitten, reported in favor of the recommendation of the Trustees, and submitted orders for the purchase of the land on St. James street, for \$180,000, and the erection of a building for the sum of \$450,000; payment for the same to be made through the medium of a public loan for \$630,000. The orders thus reported were, on the 19th March, referred to the Committee on Finance, who, on the 26th March, reported in favor of the passage of the first order (in City Doc. 45), and of the second order in a new form, so that the orders as presented for the consideration of the City Government were as follows:—

Ordered, That the City Treasurer be authorized to borrow, under the direction of the Committee on Finance, and at such rate of interest as they shall determine, the sum of \$180,000, said sum to constitute a special appropriation for the payments for land taken for library purposes under chapter 143 of the Acts of 1882.

Ordered, That the City Treasurer be authorized to borrow, under the direction of the Committee on Finance, and at such rate of interest as they shall determine, the sum of \$450,000; said sum to constitute a special appropriation to be expended in the erection of a new library building on Dartmouth street according to plans approved by the Trustees of the Public Library.

These two orders then passed the Board of Aldermen unanimously, and came up by special assignment in the Common Council on the 12th April, and were passed in concurrence by a vote of 55 yeas to 11 nays, and on the 14th April received the approval of His Honor the Mayor.

On the 21st April the city authorities took formal possession of the land given by the Commonwealth, and also of the estates on St. James street.

The perfected plans, designed to fulfil the large expectations of the proposed structure, it is hoped will be ready for acceptance, under the terms of the loan, before the beginning of another year.

WILLIAM W. GREENOUGH,
SAMUEL A. B. ABBOTT,
GEORGE B. CHASE,
JAMES FREEMAN CLARKE,
JAMES J. FLYNN,
HENRY W. HAYNES,
CHARLES V. WHITTEN.

PUBLIC LIBRARY, June 29, 1883.

[B.]

REPORT OF THE EXAMINING COMMITTEE OF
THE BOSTON PUBLIC LIBRARY.*To the Trustees: —*

GENTLEMEN, — Your committee, chosen for a single annual examination of the Library, and serving but a few months, must necessarily present imperfect results of their labors.

Although every possible facility has been afforded them by the Trustees, a thorough scrutiny of all, or indeed of any one department of this vast establishment, including its eight branches, is impracticable under the circumstances. It is therefore suggested that gentlemen be chosen hereafter on this committee who will be willing to serve for two or more years.

Our inadequate investigation, however, has revealed to us the rich treasures of the Library, its usefulness to students and the general public, and the increasing honor it confers on its founders and promoters, as a conservator of literature and literary tastes in our city, already distinguished for its intellectual life.

Although Boston may not say, with Prospero, "My library is dukedom large enough," yet, by means of it, a princely feature is added to the public educational system which is the city's pride.

Without this Library and its present generous maintenance, the ancient traditions which gather about us would be impaired; our reputation abroad as a literary centre of the republic would be jeopardized, and our citizens themselves would lack an opportunity for self-improvement which no public buildings, parks, or mere material conveniences can supply.

Even our admirable public schools would miss this crowning strength of a great popular treasure-house of learning.

In regard to the whole vast

COLLECTION OF PERMANENT LITERATURE,

one of our number, who has exceptional opportunity to judge of this department, reports as follows: —

A former librarian, Mr. Justin Winsor, calls it the most symmetrical library that he knows. Experts also say that it offers abundant material to investigators in many departments.

The excellence of the Shakspeare collection and of the Ticknor Library of Spanish literature is well known.

When the catalogue of the Barton Library is published it will be seen how very rich it is in the early dramatic literature of England, and, to some extent, in that of France. It is a collection of gems.

How, then, shall the Library be kept abreast of the times in all departments? At present it depends on the orders of the officials, the demands of students, and the suggestions of agents. Experts are also appointed to inspect and report occasionally on special departments.

Would it not, however, be well to have the process continuous instead of sporadic, by inviting competent persons to keep an eye on current publications, and on catalogues of remote books of the past, so that no chance be lost to enrich the Library, without great outlay at any one time?

To these persons the critical journals in each department might be regularly sent; also all valuable booksellers' catalogues.

This plan is now in operation to a certain extent, but needs enlargement to make it fully effective.

The officials of the Library, on whom this labor might be thought properly to fall, are too busily occupied with the more immediate duties of the Library to accomplish all that is desired for the symmetrical growth of the permanent collection. Besides, this suggestion still leaves the officials abundance of room to work for the same result.

In connection with this subject of increasing the permanent collection of valuable literature, the committee finds that no German books are sent from abroad without special order; less than one-sixth to one-seventh of the French works, and those of an entirely scientific character.

English books are largely sent without special order, because, otherwise, the delay would be very inconvenient in most cases.

There seems, however, to be no objection to purchases of English books abroad without the personal endorsement of each book by the administration of the Library, so long as the books pass under strict scrutiny on their arrival, and can be returned if undesirable.

In regard to

FURTHER ASSISTANCE TO READERS,

the present facilities would be ample, were it generally known that three courteous and intelligent persons are at the desk on Boylston street, and two at the other end of Bates Hall,

a part of whose duty it is to answer all proper questions of visitors. Could this fact be fully understood, even the card catalogues would be a mystery to no one, and there would be less difficulty in finding some books. It is gratifying to learn that more readers than ever before frequent Bates Hall; that scholars from a distance resort to its matchless collections, and that some even choose Boston as a residence for the winter, in order to use this part of the Library which is freely placed at their disposal. Many authors might be named who acknowledge great indebtedness to the special collections. Some write to ask for a verification of facts; some for copies of title-pages; others for information not elsewhere to be obtained.

THE PATENT ROOM

is fast becoming one of the more important parts of the Library. A record is kept of visitors to this department, and shows that it is a benefit to the whole country. The collection, received by gift from the United States Government and from foreign governments, needs larger and more accessible quarters, which your committee is glad to know will be provided in the new building.

THE PRESENT BUILDING

is already too small, inconvenient, and unsafe for the Library as a whole. When Mr. Winthrop, in his dedicatory address, spoke of ample accommodations for many coming generations, he hardly thought he would live to see the day when

“ Infinite riches in a little room ”

would crowd and cry for space.

Owing to its location and the contiguity of lofty buildings the risk of fire ought not to be overlooked.

The present danger is too great for such a depository of thousands of priceless volumes, many of which, if destroyed or damaged, could not be replaced.

The whole building is also sadly deficient in ventilation and light.

Your committee are pleased to know that plans have been obtained from the City Architect, providing, at a very reasonable expense, better air and light for the temporary purposes of Bates Hall, until the whole structure shall be remodelled (as we trust it soon will be), exclusively for the popular circulating portion of the books, the larger part of which is now in the basement rooms.

We forbear to comment on the dark and disagreeable apartments below, used at present by the public at large, inasmuch as the desirable change above mentioned will probably be accomplished within a few years. Meanwhile, we solicit your attention to the temporary improvement thus rendered possible.

The theory of a great Public Library necessarily includes

THE POPULAR CIRCULATING DEPARTMENT.

This is somewhat distinct in its use and value from such parts of the Library as are used for the accumulation and preservation of literature for the researches of scholars, and for circulation among them.

A Public Library in a crowded city consists in part of a collection of entertaining and more or less instructive works for the people at large: popular books of history, biography, fiction, travel, and adventure; also, periodicals and elementary treatises in science and the mechanical arts.

This department aims among other objects, to provide employment and pleasure for minds which seek relaxation, and also for those who might otherwise be occupied in less profitable pursuits.

Thus it indirectly fosters a taste for better reading.

It also takes the place of special libraries in our common schools, and supplies mechanics with facilities for improving themselves in their various occupations. It ought therefore to contain the very best books for these purposes. Your committee finds, from statistics carefully kept from day to day, that books of the better sort are more read than ever before in the history of this Library, and that this department is continually increasing the number of the improved class of instructive and entertaining books for the young, which is a characteristic of our times. It should always be kept in mind that three-quarters at least of the readers are young persons; this is especially true of the branches. The employment of persons to advise the young in the selection of books, and the readiness of all the officials to give such advice, cannot be too highly commended.

Your committee is fully aware of the charges urged against the Library on the score of circulating books of a harmful character.

The suggestions of the minority committee of last year have also been duly considered and weighed.

It should be remembered that in a vast reservoir of literature like this, good and bad books must exist together, and that the wisest supervision cannot prevent some harmful

use of corrupting works. Besides, the keeping out of circulation of all books to which exception may be taken is beyond the power of any administration, so long as the best "critics of morals" are divided in their opinions as to what books are injurious. It would be impossible for this committee personally to inspect the thousands of volumes of fiction in the Lower Hall and in the branches.

While deprecating the fact that there may be injurious works in the accessible parts of the Library, which have escaped the vigilance of the authorities, we do not see how a committee of inspection outside the present administration, could be made efficient. We are inclined therefore to intrust this important matter of suppressing all works discovered to be vicious, to the men and women who have charge of the Library, and who can find out its contents better than any one else. We are satisfied that, so far as they can, the librarians conscientiously deny to the public access to any works fairly considered to be of a demoralizing character; the Trustees refuse to provide duplicates of recent works of fiction which cumber the shelves after their novelty is gone; feeble books give place to those of a more robust character, and the really objectionable ones, when discovered, are kept under lock and key; very little if any "trash" is now purchased, and therefore we can only recommend the most constant vigilance and the utmost circumspection possible. To do more than this would be to imply a lack of purity, or at least an indifference to it in others, on the part of those appointed to provide reading for the public. We rejoice that the percentage of the poorer sort of reading is gradually diminishing, and we heartily commend all honest efforts, within and without the Library, to reduce such reading to a minimum, especially among the young. Let parents, teachers, and others give immediate notice of any improper book with the stamp of the Library upon it. The committee would also suggest that the lists of the better class of popular books, historical, scientific, instructive, or entertaining, which have from time to time been posted in the public schools for the stimulation and guidance of the pupils, be extended, and accompanied with a request from the librarian to the teachers that more pains be taken to encourage the scholars in a proper use of the Library.

The public schools and the Library, as parts of one great system of education, might thus be brought into even more helpful relations to each other than exist at the present time.

In addition, it may be possible to elevate the literary standard of the schools by giving to the higher classes an

occasional talk on books and their uses, at the Library building, by one or more of the teachers or librarians.

CATALOGUES.

The problem of the best catalogue is how to bring the greatest number of books in the simplest and most convenient way to the largest number of readers, — a problem by no means easy of solution, even if the factor of expense be excluded.

Your committee cannot venture to advise, with their present limited knowledge, between the several modes of cataloguing the immense number of books in this Library. While for younger readers and mechanics a printed catalogue seems almost a necessity, for scholars the card catalogue must at present suffice, especially when the large number of books added every year is taken into account. For the special collections, like the Barton and Ticknor libraries, the more precise and full the printed catalogues the better, since these collections are complete in themselves and permanent.

We would, however, advise a consolidated catalogue of authors and titles, including subject-references, supplementing the lists now in use in the popular circulating department.

This would do much towards satisfying many who ask only for new publications, by aiding them in making other selections.

Your committee is impressed with the fact that so few books are lost or stolen out of the immense number circulated among all classes. It seems to argue that a sense of honor, as well as a love of reading, is developed among the people, by freely trusting them with the books, which are understood to be the property of all alike.

THE BRANCHES.

We doubt if the general public is aware of the effective work done by this Library, by means of its eight branches and six delivery-stations.

At several of the branches there are special collections of valuable books. Such are the rich Library of the Fellows Athenæum at the Highlands, and the Harris collection at Charlestown.

In some localities the accommodations are excellent, espe-

cially at the Highlands, where the building in which the Fellowes Library is deposited is superb, although it is a most inconvenient location for the general public.

It is very obvious however, to your committee, that the rooms of the East Boston branch are not only inadequate in size, but very unfortunately placed over the police-station of that district. The present plan of enlarging this building, with its Public School and Library above, and its court-rooms for criminals below, appears to us the very worst possible arrangement for the good of this branch. That ladies and children visiting this Library are compelled to witness the scenes that daily occur in and around this building is a reproach to the city which ought to be removed.

The lack of many duplicates of recent works of fiction at the branches — which has been sometimes complained of — seems to us a wise economy on the part of the Trustees, who decline to increase the number of such books indefinitely.

The librarians of the various branches are enthusiastic over the improvement they see in the reading public which uses their rooms and books.

They are anxious to maintain as high a standard in all departments as the surroundings will allow. In the more favored locations the citizens take a just pride in their local collections, and the Trustees are wisely adding new delivery-stations wherever the population and the demand warrant the increased outlay.

THE ADMINISTRATION.

The complicated machinery of this great institution is now adjusted admirably to the working force. The business of the various financial departments appears to be most systematically conducted. The current expenses, for which the means are furnished by the city, are paid each month by the city treasurer, after being approved by the Trustees. Thus, very little money passes through the hands of the officials or Trustees.

The more expensive books for Bates Hall and the special collections are bought with the income of funds given by individuals.

Your committee concur with the opinion of the Examining Committee of last year in regard to a larger allowance of salary for such members of the working force as might be designated by the Trustees. The skilled intellectual labor of a portion of those employed demands exceptional qualifications, which ought to be correspondingly remunerated.

The advantages of having the binding done in the building, under the immediate supervision of the librarian, are so obvious, that it is commended, even at a slightly increased cost over the same work done outside.

The relations between the Trustees and the Librarians appear to be harmonious and satisfactory.

While the Trustees give a great deal of valuable time and thought gratuitously to the Library, those in daily charge of its affairs seem to be no less interested in the endeavor to enrich and purify the streams that flow from this source of public benefaction.

We commend to them the use of even greater efforts to satisfy the demands, both of those who read and those who are interested in the elevation of the great variety of readers.

Our investigations cause us to realize more than ever before, how much good citizenship depends on the use that is made of this noble institution, which contains within its walls enough of health to make the whole world well.

In conclusion, your committee congratulates the community on the recent decision of the City Government to build

A NEW LIBRARY BUILDING.

The site which is now secured is a most commanding and suitable one. When placed in the new structure the most valuable part of the Library will be permanently safe.

Facilities will there be offered to scholars which will leave little to be desired; and the general public will be far better served than ever before, by the occupation and improvement of the whole of the building on Boylston street as a centre for the circulating department.

It is obvious that great care and forethought must be exercised in adapting the new structure to its most desirable ends.

We commend the wisdom of the city in obtaining sufficient space for any future of which the present can justly take thought. The construction will naturally be carried forward under the watchful eye of all friends of free libraries. The plans will require the best professional talent, and to that talent must be added a knowledge and practical experience of the needs of such a library in its actual working.

Your committee consider the public fortunate in being able to entrust the execution of this important work to the excellent Board of Trustees, and to its President, Mr. W. W. Greenough, whose able care and sound judgment may be

confidently relied upon, notwithstanding the magnitude of the undertaking.

ALEXANDER S. TWOMBLY,
RICHARD SULLIVAN,
THOMAS S. PERRY,
JOHN G. BLAKE,
T. W. HIGGINSON,
J. AUDLEY MAXWELL,
WM. F. APTHORP,
AUGUSTUS LOWELL,

Examining Committee.

Report on the Parker Library.

To the Trustees of the Public Library:—

The remarkable collection of books bequeathed by Rev. Theodore Parker to the Public Library of Boston has never been separately catalogued, as has been the case with the Ticknor and Barton collections. It was simply included in the books indexed in the Supplement to the Bates Hall Catalogue; and the books coming from this source are not there distinguishable from the mass of other works. The collection has always been kept by itself in the Library, and there is a manuscript catalogue of a portion of it, prepared under Mr. Parker's own direction. The bequest has now been completed by the reversion of that part of the library retained by Mrs. Parker until her death, under the provisions of her husband's will. It therefore seems proper that there should be some special report upon a collection so valuable in itself, so interesting through its personal associations, and historically so important to the Public Library, as being the first considerable private collection which it inherited by bequest.

The books which came to the Library at Mr. Parker's death numbered 11,190 volumes, besides 2,500 pamphlets, which were afterwards bound and accounted as books. (Index of Books in Bates Hall; Supplement; Prefatory Note.) At the death of Mrs. Parker, 2,117 additional volumes became the property of the Library, besides 280 volumes of her own which she bequeathed. To these are to be added a small number of volumes relating to Mr. Parker, but presented by others, and properly to be considered in connection with his library, making up the whole number of books under this head to nearly sixteen thousand. This does not include Mr. Parker's manuscripts and literary materials, these having passed, at Mr. Parker's death, into the possession of Mr. F. B. Sanborn, of Concord, who is to act henceforth as literary executor.

The library was formed under circumstances somewhat peculiar. It was the work of a man possessing a more omnivorous passion for books than almost any of his contemporaries in this country, and enabled by circumstances to gratify that passion more and more as time went on. Beginning as a poor scholar, and then living on a very modest salary as the minister of a small suburban parish, he was early a collector of books to supply his actual needs; and, after he had been transferred to a large city parish, and had become a very popular lecturer, he was enabled to set aside

most of his income from the lecture source for this object. Books, which were at first the necessities of his life, became at last his only luxuries. He justified himself for incurring the expense of their purchase partly by looking forward to a great work which he had planned on the History of Religion, partly by the purpose, long cherished, of bequeathing these literary collections for some public service. For a long time this prospective destination was Harvard College, of whose library he had made much use; but soon after the formation of the Free Public Library, in 1852, he was led to change his purpose by the conviction that the plan of this institution would make the books even more useful than if given to Harvard College. It is pleasant to know that one controlling influence which brought about this change of plan was — according to his life-long friend and housemate, Miss Hannah Stevenson — his confidence in Mr. George Ticknor as a library organizer. These two men, resembling each other in their love of books and in their public spirit, but cut off almost from personal intercourse by their difference of opinion on public questions, thus coöperated in endowing the greatest institution of the city which they both loved.

The library of Mr. Parker was thus collected with a view to actual use by himself, and prospectively by others, and this affected its very selection from the beginning. It was not a show library, or the library of a technical bibliomaniac; it was the collection of a specialist, but of a specialist with a wide horizon. It was formed by a scholar upon the lines of his own particular studies, but projecting those lines far beyond what he could reasonably expect to accomplish in a lifetime. In the midst of a career so exacting and laborious that, in spite of a most vigorous organization, he died an old man at fifty, Mr. Parker was always making a collection of books that represented both his pursuits and his purposes. On particular occasions he ransacked these books to his heart's content; but they also represented the vast range of study which he never lived to accomplish. It often happens that the most valuable part of a student's collection may be that on which time has for him written *No thoroughfare*, but which opens such a thoroughfare for others after he is gone.

It is easy to select the single book with which a view of the Parker Library should properly begin. "Which of all my books," the donor once said to the present writer, "do you think that I have most enjoyed?" Then turning, he took down a well-worn copy of Ainsworth's Latin Dictionary (Philadelphia, 1820), inscribed in a boyish hand on the fly-leaf, "Theodore Parker, ejus liber, 1822." He was then

twelve years old; it was the first book he had ever owned; he had earned the money for its purchase by picking berries on his father's farm — the farm which had been in his family for a century and a half, and from which his grandfather had gone forth to take part in the battle of Lexington. On this corner-stone the costly library was built up.

It is doubly fitting to regard this book as the corner-stone of the library, because it is on a copious variety of dictionaries and grammars that its foundations are farther laid. No class of books contained in it has been more used by the public. Mr. Parker had himself the greatest facility for learning languages. Dr. Convers Francis used to say of him in his youth that when he had lent Theodore Parker the grammar of a new language he usually found, at their next meeting, that he had devoured half its literature; and Professor Seligström, who taught him Swedish, said that he took it in as one eats an apple. He had given more or less attention to Greek, Latin, Hebrew, Arabic, French, Spanish, Portuguese, Italian, German, Anglo-Saxon, Mæso-Gothic, Dutch, Danish, Swedish, Norwegian, Russian, and several American Indian dialects — making more than twenty in all. The apparatus for nearly all these is to be found in the Parker Library, with that of many more which he had only wished to study. These last cover a wide geographical range, from the minor Slavonic dialects to the African languages and the Kawi language of Java; and include, for instance, the very rare Mexican and Spanish dictionary of Molina, now worth £20 at book auctions. Counting all these, the full number of languages or dialects represented cannot fall much short of forty.

After the grammars and dictionaries comes a class of books to which the general public is inevitably indifferent, but which for scholars are of the very greatest value. Mr. Parker had a great taste for those formidable and ponderous works of which Bayle's Dictionary is the most familiar type, — vast and voluminous encyclopædias, giving a summary of all the wisdom of their time; books which, in one sense, are superseded, but which, in another sense, can no more be superseded than the Pyramids, because they preserve indestructibly that of which the present has lost sight. They are inestimable as a part of the history of knowledge; their very omissions are exceedingly important, for it may be as essential to ascertain definitely what was not known on a given point at a certain period as what was known. Such books are, for instance, Hofmann's *Lexicon universale*, in 4 vols., folio (1698); Beyerlinck's vast *Magnum theatrum vitæ humanæ*, in 7 vols.

folio (1631); Moreri's *Dictionnaire historique*, 4 vols., folio (1724); Jöcher's *Gelehrten-Lexicon*, 4to (1750); Semler's *Welthistorie*, 72 vols., 8vo (1744); Pierer's *Universal-Lexikon*, being the copy presented by the author to J. E. Worcester, 34 vols., 8vo (1840); the series closing with Ersch and Gruber's enormous *Allgemeine Encyclopädie*, 150 vols., 8vo, which belongs to our own time, and is still unfinished. With these should be classed the well-known French *Biographie Universelle*, and many other works not enumerated. Few American libraries are so well furnished in what may be called the retrospective-encyclopædic department; and there is always a possibility that the faithful scholar may find in these vast mausoleums of knowledge some fact which he might otherwise have had to take a voyage across the Atlantic to obtain.

In the department of literary history these great collections are especially to be found. These are, for instance, Meusel's two great lexicons of German authors, 38 volumes in all; the *Bibliothek des Literarischen Vereins in Stuttgart* in 150 vols., and a similar collection of equal size from a society in Halle. There is also Hammer-Purgstall's great history of Arabian literature in seven bulky volumes, with other works by the same author. In the department of travels and geography there are similar voluminous collections, beginning with Strabo, including a fine copy of Münster's quaintly illustrated *Cosmographia* of 1554, with the great *Allgemeine Historie der Reisen* in 21 vols., 4to (1747). There are also the more modern collections of Malte-Brun, Mannert, Herrera, Torquemada, Pallas, Berghaus, and others.

Another favorite department of Mr. Parker was that of Jurisprudence, and this he used largely in preparing his defence — perhaps more laboriously learned than the occasion required — when indicted in the Anthony Burns case. In this department there are great folios of Roman law, with the works of Bynkershoek, Savigny, Rein, and Hugo. He even pleased himself by possessing the great *Jurisprudence Musulmane*, of Khalil-Ibn-Ish'âk', in six volumes, 8vo. In theology, as in other departments, his tendency was towards monumental works; thus he not only has the early Christian fathers in the hundred-volumed *Patrologia*, of Migne, but has also the *Maxima Bibliotheca veterum patrum*, published at Lyons in 1677, in 21 volumes, folio. He has also the *Annales Ecclesiastici* of Cæsar Baronius, published at Antwerp, from 1597 to 1642, in 12 vols., folio; the works of John of Launoy (1731) in 9 vols., folio; Mabillon's *Annales ordinis S. Benedicti* (1739-45), in 6 vols., folio, and simi-

lar ponderous foundations of ecclesiastical history. Upon this is, of course, reared a great superstructure of modern and especially of German theology. There are also the complete works of the German metaphysicians of the first class, and some of the second class.

Mr. Parker bought the Latin and Greek classics in the large collections which comprise them all, and had a few fine old folio editions, with many modern editions and commentaries. These all have their value, though often superseded by the more critical work since done. In some cases we see his special tastes in the accumulation:—thus there are a dozen different works on Aristotle, and all the best editions of the Greek Anthology, the Palatine text, as edited by Brunck (3 vols., 8vo), and Jacobs (10 vols., 8vo), and that of the Planudean text, edited by Bosch, with the versions of Grotius (3 vols., 4to). There may also be mentioned Wolf's *Mulierum Græcarum Fragmenti* (4to), the Oudendorp edition of Apuleius (7 vols., 4to), Spalding's *Quintilian*, with Bonnell's *Lexicon* (6 vols.), and the commentary of Eustathius on the Iliad and Odyssey (5 vols., 4to).

There is not much in English literature, three-quarters of the books, perhaps nine-tenths, being in foreign languages. There is little in natural science, which he gets rather by the conversation of his learned friends, like Desor, than by personal study. There is something in the way of botany, for which he always preserved a farmer's love; and one is surprised to find books on mathematics, to which he is not known to have given much attention. There is a good deal of European and ancient history, and a large collection of the more common histories, biographies, and a collection of works in American history, but few rare *Americana*. There is, of course, a large collection of books and pamphlets bearing on American Slavery. There is also a very considerable gathering of out-of-the-way books on the Occult Sciences, for which he had, like many studious men, a covert taste. This includes such books as Lobeck's *Aglaophamus*—a study of ancient systems—and Reiff's edition of the *Oneirocritica* of Artemidorus,—a work on the interpretation of dreams.

One naturally wishes to track the personal footsteps of a man like Theodore Parker through the books he used; but this is rather difficult, and one is a little disappointed at the infrequency of notes and memoranda. No doubt it is the more indolent scholars, like Coleridge, who annotate their books; and Parker was the busiest of men apart from all literary work. He wrote largely for the "Dial," and he

edited the "Massachusetts Quarterly Review," which was to be, he said, "the 'Dial' with a beard"; but there are no notes in his copy of either.

The interleaved copy of his translation of De Wette has a few notes and emendations for another edition. It is interesting, as a proof of his promptness and activity as a student, to see that he owned, in 1837, Comte's *Cours de Philosophie Positive*, which was originally published in 1830-1842, and attracted so little attention that it is said not to have been noticed in any leading review until 1846. But there are no notes in his copy. Nor are there many in his copies of the classics, though the present writer was once told by Mr. John G. King, of Salem, one of the last of our old-fashioned classical scholars, that Theodore Parker was the only person he had ever encountered who could sit down with him and seriously discuss a disputed passage in a Greek play. Accordingly there are some hints and criticisms of this kind in one of his copies of Æschylus; and there are many critical notes and references at the end of almost every one of the nine volumes of Duncan's edition of Euripides. It must be remembered that most of his classical study took place in his earlier life, when he had little money to buy books.

The one department in which his notes are full and interesting is that of American history; and these books show the great amount of work that went to prepare for his "Historic Americans," and also his extreme independence and freshness of criticism. His set of John Adams' writings, for instance, has plenty of such notes, including a very spicy summary at the beginning, in which he gives his opinion both of the statesman and his biographer; and in the works of Webster, and many others, there are similar notes. It is understood that an enlarged edition of "Famous Americans" is now being prepared by Mr. Sanborn; and this when published may enable us to understand how it is that we have in his library ampler traces of preparation for this book than for most others.

The element of personal biography in Mr. Parker's collection seems naturally to culminate in a remarkable collection of personal memorials of him, prepared by Miss Matilda Goddard and contained in eleven thick volumes presented by her to the Public Library. These are neatly bound, arranged, and indexed; they contain most of his pamphlets and magazine papers and a large number of those occasioned by him; there are also many original letters or documents bearing upon his life. It is, in short, such a collection as only affectionate

care could plan and close personal intimacy create. Aided by these and by the unconscious reflection of Theodore Parker in the library he collected, the future historian will be able to furnish a better picture than any yet given of his remarkable character and career.

THOS. WENTWORTH HIGGINSON.

**Report of Mr. Thomas S. Perry, on French Literature
in the Public Library.**

To the Trustees of the Public Library: —

GENTLEMEN, — Last year I handed to you a list of the German books that, in my opinion, were most immediately needed in the Public Library; and since then, as I had done before, I have suggested many additions to what is already a satisfactorily full collection. With regard to the French books, my task is much more difficult; for, although the Library already contains material for a careful study of French literature, there are many directions in which gradual growth is desirable. What may be called the framework is provided. In the Barton library alone there is an admirable selection of important books in costly editions. I need only mention the now rare reprints of early works that were made before 1850, such as the *Poésies morales et historiques* of Eustace Deschamps, Paris: 1832; *L'Histoire du Chatelain de Coucy et de la Dame de Fayel*, Paris: 1829; the *Chansons de Chatelain de Coucy*; Legrand d'Aussy's and Barbazan's editions of the *fabliaux*, and very many reprints of the *romans, lais, moralités, contes, fables*, etc., etc. Among early editions are to be found the *Roman de la Rose*, 1529; Garnier's plays, 1585; those of Montchrestien, 1627; *Tragedies saintes*, 1583; *La Guisiade*, 3d ed., Lyon, 1589; Jean de la Taille, vol. II., Paris: 1573; a volume of Scarron's comedies, 1670 to 1688; *Le Marchant converti*, 1582; Charon's *De la sagesse*, 1601; *Le Tombeau de Marguerite de Valois* 1551; the *Marguerites de la Marguerite des princesses*, 1547; the works of Alain Chartier, Paris: 1529; Jean Antoine de Baïf's *Les Mimes*, Paris: 1597; *Le Moyen de parvenir*, 12 mo, pp. 623, possibly the oldest edition, at any rate very rare, etc., etc., etc.

These books are obviously not mere bibliographical curiosities. They enable the student to carry on his investigation of the beginnings of modern French literature more thoroughly than he can do with even the numerous reprints of the early authors. These rare books fill many gaps.

The Barton library contains also numerous early but not specially rare editions of various other important books. The best known, as well as many secondary writers, up to the middle of the present century, appear in the best editions. The stage is exceptionally well represented. Many of Rotrou's plays in their original form, those of Fagan,

Pannard, Boursault, Quinault, and of many others, indicate the collector's taste for the drama and form an important supplement to the rich collection of early English plays in the original editions. The copy of Ducis is further enriched by the insertion of the original drawings for the illustrations, and of the engravings in three states. This is an excellent example of Mr. Barton's method in forming his collection. Besides his love for the best books, he had the book-buyer's hunger for whatever was unique.

There are also a few volumes of the plays published at the time of the Revolution, and about thirty volumes of curious historical pamphlets belonging to the same period.

Outside of the Barton library there is a large number of French books. The cheap reprints that have appeared in profusion during the last thirty years have been generally bought by the library, and it is to be hoped that the same policy will be pursued in the future. The mere fact that a book is reprinted shows that it has some importance and, since the price at which they are republished is generally low, the Library can evidently thus enrich its shelves at moderate expense. It is to be remembered that the editions are generally small, and that thus delay is dangerous. Just now many minor writers of the seventeenth and eighteenth centuries are reappearing at a moderate price. I earnestly recommend their purchase whenever they are not already in the Library.

I add no list of other books which seem to be needed, because not a week passes, I think I am safe in saying, that I do not hand in titles for your consideration. I have during the year, however, marked in Saintsbury's *History of French literature* the lacking books which it seemed desirable to have. I have also run over Lorenz's catalogues for thirty-five years, and several volumes of the *Bibliographie de la France*, marking what, in my judgment, it was important that the Library should possess. Not all the books thus marked are, of course, of equal value, yet all, I think, might well, in time, find a place on your shelves.

Let me, in conclusion, say that the more I have examined the Library the more I have been impressed with the richness of its collections. The French and German departments were originally begun by ripe scholars. The lines in which they have been built up, in the direction of solid literature, show the wise spirit of those who began the task of collection, and their frequent use by readers attests their value in the public estimation. Doubtless with time the interdependence of all modern literatures, — the fact that they are all working together in behalf of civilization, — will become more

manifest; the study of the modern languages will spread, and these departments will be more used even than now when this division of the Library is invaluable to all scholars and most readers.

T. S. PERRY.

**Report of William F. Apthorp, Esq., on the Musical
Department in the Public Library.**

MELLEN CHAMBERLAIN, *Esq., Librarian Public Library,
Boston : —*

DEAR SIR, — As requested by you, I have examined the musical department of the Public Library, and find that the collection of musical biographies, theoretical treatises, and, in general, of such works as come under the head of "Musical Literature," is what may be called measurably complete. On the other hand, the musical library, properly so-called, the collection of works by great composers, is by no means rich, when compared with the condition of other special departments in the Public Library.

As you have intimated that the trustees of the Public Library are anxious to place the musical department upon a footing worthy of the dignity, and of the prominent position the art of music holds at the present day as an element of general culture, and have furthermore asked me to make such suggestions as seemed to me best calculated to obtain this result, I submit the following : —

It seems to me important, in every respect, that the Public Library should own as many of the full orchestral scores as possible of the great masters. Such scores may be divided into two classes, —

Class I., comprising such standard works as it is beneath the dignity of a great library to be without ;

Class II., comprising such modern works as it is of inestimable and immediate importance to the music-student to have at his disposal, but the costliness of which makes it generally impossible for him to purchase.

I therefore suggest that the Public Library purchase, as soon as practicable, the following works : —

A in Class I.

1. Such numbers of the complete edition of the works of *Johann Sebastian Bach*, by the German "Bach-Gesellschaft" (published by Breitkopf und Härtel, of Leipzig), as are not already in the alcoves.

2. The entire edition of the works of *G. F. Händel*, by the German "Händel-Gesellschaft," in so far as it has yet appeared. It also is published by Breitkopf und Härtel.

3. The following complete editions by Breitkopf und Härtel: — *Beethoven*, *Chopin*, *Mendelssohn*, *Mozart*, *Schumann*.

4. The following standard scores, completed by Robert Franz: —

Bach's "St. Matthew Passion," Breitkopf u. Härtel, Leipzig; *Bach's* "Trauer-Ode," Kistner, Leipzig; *Bach's* "Weihnachts-Oratorium, Leuckart, Breslau. Cantatas by *Bach*, published by Leuckart, Breslau: — 1. "Es ist dir gesagt"; 2. "Gott fährt auf"; 3. "Ich hatte viel Bekümmerniss"; 4. "Wer sich selbst erhöhet"; 5. "O ewiges Feuer"; 6. "Lobet Gott"; 7. "Wer da glaubet"; 8. "Ach, wie flüchtig"; 9. "Freue dich"; 10. "Gottes Zeit"; 11. "Sie werden aus Saba. *Händel's* "l'Allegro," etc., Leuckart, Breslau; *Astorga's* "Stabat Mater," H. Karmrodt; *Durante's* "Magnificat," Ibid.; *Händel's* "Jubilate," Ibid.

5. The following scores by *Händel* filled out by *Mozart*: —

"Acis and Galatea," Novello, London; "Alexander's Feast," Peters, Leipzig; "The Messiah," Ibid.

B in Class II.

1. The following full orchestral scores by *Wagner*: —

1. "Lohengrin," Breitkopf und Härtel; 2. "Tristan," Ibid.; 3. "Die Meistersinger," Schott, Mainz; 4. "Das Rheingold"; 5. "Die Walküre"; 6. "Siegfried"; 7. "Götterdämmerung," Schott, Mainz.

2. The following full orchestral scores by *Berlioz*: —

1. Requiem (Ricordi's 2d edition); 2. Te Deum; 3. Symphonie Fantastique; 4. "Harold en Italie"; 5. Symphonie Funèbre et Triomphale; 6. "Roméo et Juliette."

Furthermore, it seems to me a good idea for you, sir, to put yourself in communication, at the beginning of every season, with Mr. Georg Henschel, of the Boston Symphony orchestra, with the presidents of the Handel and Haydn Society, the Philharmonic Society, the Cecilia, the Apollo Club, and the Boylston Club, and find out from them what important *new* choral works with orchestra (oratorios, cantatas, etc.), or new orchestral works (symphonies, overtures, suites, concertos), they purpose bringing out during the season, and for you to purchase the full orchestral scores of the same for the Public Library.

I would also suggest that all the scores I have mentioned be classed as special books, and only allowed to be taken from the Library for purposes of study.

I remain, sir, very respectfully,

Your obedient servant,

WILLIAM F. APTHORP.

Boston, June 1, 1883.

[C.]

LIBRARIAN'S REPORT.

To the Trustees:—

My fifth annual report is herewith respectfully submitted.

INCREASE OF THE LIBRARY.

At the close of the library year, April 30th, the Public Library contained 422,116 volumes, a net increase for the year of 17,895 volumes, and the largest of any year not marked by the accession of an entire library.

Of these volumes, 16,202 came by purchase, 404 by exchange, and 5,340 by gift, a detailed account of which will be found in the Appendix. Nearly 12,000 have been added to the Bates Hall collection, and the remainder distributed in the Lower Hall and the branches.

The largest donations are as follows: Mrs. E. B. Bigelow has presented, from the library of the late Erastus B. Bigelow, 138 volumes on industrial science, uniformly and handsomely bound. Dr. Henry J. Bigelow has permitted the Librarian to select from the library of the late Dr. Jacob Bigelow 927 bound volumes and 749 pamphlets, many of which are of very considerable value. From the British government has been received its annual contribution of British patents, this year comprising 66 volumes; from Dr. William Moon, of Brighton, England, 351 volumes and 200 printed sheets, in embossed type for the blind; from Mrs. Edward Wigglesworth, and from Miss Caroline Dorr, valuable collections of newspapers and pamphlets; from Wendell Phillips, Esq., 1,303 books and 4,682 pamphlets, many of which are of great value, with a mass of anti-slavery literature which will strengthen a division of the Library previously uncommonly full; from the Arch-Duke Ludwig Salvator, of Austria, ten volumes of his own works, finely printed and illustrated, and from Charles F. Shimmin, Esq., the publications of the Chaucer society, the Early English text society, and the New Shakspeare society, in 158 volumes and parts. Nor will I omit to mention in this place several important donations made shortly after the close of the library year. Mrs. R. Anne Nichols, of the Roxbury Highlands, has presented to the Library 77 volumes, chiefly folios and quartos, and many of them richly illustrated with portraits and engravings. This collection, which has rarely been exceeded in value by

any single donation to the Library, has already been assigned to the same apartment which contains the library given by Mrs. Nichols' sister, the late Miss Eliza M. Thayer. From the family of the late Deacon Moses Grant have been received several hundred volumes and many pamphlets, comprising copies of many desirable books printed in Boston; and from Mrs. S. A. Clark a collection of more than a thousand portraits and engravings, gathered by her late husband, Elijah P. Clark, Esq., to illustrate Carlyle's History of the French Revolution.

Nor has the Central Library been the sole recipient of benefactions. Dr. Edward J. Forster has presented to the Charlestown branch a complete set of Braithwaite's Retrospect of Practical Medicine and Surgery, from 1840 to 1883, and a nearly complete set of the Boston Medical and Surgical Journal. Friends of the Public Library living in West Roxbury have given sixty-four dollars, which have been expended in books for the Library in that ward; and a citizen of South Boston has given one hundred dollars for the purchase of reference books for the South Boston branch library.

The family of the late Dr. Nathaniel Bowditch have continued their annual liberality, enabling the trustees to purchase, during the year, several hundred volumes on mathematics, selected mainly by the advice of Professor Runkle, and his assistants, of the Institute of Technology. And I desire to mention in this connection similar services to the Library, rendered by Hon. Oliver Wendell Holmes, Jr., and Edward W. Sanborn, Esq., in the department of jurisprudence, and by Prof. Thomas S. Perry, in French and German literature.

LIBRARY FACILITIES.

The additional facilities for the distribution and use of books added during the year are the North-End Reading-room and Delivery station, opened in the Hancock school-house, in which eligible rooms were placed at the disposal of the Trustees, by the school committee, and fitted for library purposes by a special appropriation of the City council. A Delivery station has been opened at Neponset, which appears to be appreciated by the inhabitants of that section of the city; and the trustees will soon be in possession, by vote of the City Council, of rooms in the old Blue Hill bank building, more convenient than those at present occupied at the Lower Mills, Dorchester.

CIRCULATION.

The circulation of books from the whole Library exceeds that of the last year by 5,349 volumes, and presents some gratifying features. From Bates Hall, for home use, were taken 66,948, against 63,782 the preceding year; and the hall use was 113,127 against 103,540, for the same period; and the aggregate use of 180,075 is larger by more than 12,000 than in any previous year.

This increase in the circulation of books from Bates Hall extends through all the classifications into which books are divided, with two exceptions. In the classics and in French literature, especially the latter, the circulation has fallen off. On the other hand, in American history, English history, and theology, the growth of circulation has been most marked, being more than one third of the total circulation. Works illustrating the fine and the useful arts have been in demand.

CIRCULATION IN THE LOWER HALL.

From the following tables the Trustees will see the improved character of the books circulated from the Lower Hall, during the last year, as compared with the year previous:—

CLASSIFICATION OF LOWER HALL CIRCULATION BY PERCENTAGES FOR 1881-2 AND 1882-3.

	1881-82.	1882-83.
Fiction and juveniles	64.23	61.49
History and biography	7.01	7.26
Voyages and travels	4.03	4.57
Science, art, etc.	8.96	9.47
Periodicals, in volumes	4.93	5.11
Foreign languages	3.52	4.41
Miscellaneous, poetry, etc.	7.32	7.69

The above figures show a very considerable decrease in the use of fiction, and a corresponding increase in the use of other departments of literature. But, while the foregoing figures are gratifying as indicating the efficiency of those means, used particularly in the Lower Hall, to improve the quality of the reading, still it will be noticed that there is a very large decrease in the circulation of books from that department.

CATALOGUES.

During the last year a much needed catalogue of the South-End branch has been published, and the effect on the circulation at that branch has been marked, as is always the case. All the branch libraries now have printed catalogues, issued as follows: Brighton, in 1874; Charlestown, 1880; Dorchester, 1882; East Boston, 1879; Jamaica Plain, 1878; Roxbury, 1876; South Boston, 1879; South End, 1883. These are supplemented by card catalogues at each branch, by titles published in the Quarterly bulletins, and by those in forms upon the walls in each building. Supplementary printed volumes will soon be desirable at Roxbury and other branches, and a new catalogue at Brighton. Nothing will supply the place of a printed catalogue, embracing under one alphabet, the titles of all the books in a library; and since the branch libraries are designed for popular use, it becomes a serious question whether superannuated books should be allowed to remain in such libraries, thereby swelling the number of useless volumes, so as to render impracticable the frequent issue of new catalogues.

At the Central Library the work of revision of the card catalogue has gone steadily forward, and the improvement in its condition is quite marked. The aim has been to reduce the bulk of catalogues as far as possible without interfering with its completeness, and to condense the titles within the closest limits.

The Quarterly bulletins have been published as usual. Several lists begun during the year promise to be of great value. The preparation of the catalogue of the Benjamin Franklin literature in this and other libraries, for the Bulletin, has brought to light much unpublished material. The publication of special lists has served to show the deficiencies of this library, which, as in the case of the Franklin collection, have been largely supplied by gift. The index of articles upon American local history, contained in miscellaneous collections in the Public Library, which was begun in the April number of the Bulletin, has been received with favor.

The final revision of the cards of the Barton catalogue previous to printing is now going on; and work is in progress upon a new edition of the Hand-book for Readers, which will consist largely of such lists of books as will serve to make the Library more accessible. One of these lists — an index to the notes upon books found in our own bulletins and catalogues, and in those of other libraries, as also in various literary periodicals — has been finished and duplicated on

cards which have been inserted in the card catalogues in Bates Hall.

During the period from May 1, 1882, to May 1, 1883, 16,025 new books, 4,217 pamphlets, and 4,084 serial volumes have been catalogued; and 92,394 cards have been added to the catalogues of the Central library and branches, including those for books re-catalogued, but not those made for the Barton and Bowditch libraries.

MELLEN CHAMBERLAIN,
Librarian.

April 30, 1883.

APPENDIXES
TO THE
LIBRARIAN'S REPORT.

1883.

LIST OF APPENDIXES.

- I. EXTENT OF THE LIBRARY (BY YEARS).
- II. YEARLY INCREASE BY PURCHASE AND DONATION.
- III. VOLUMES IN THE SPECIAL COLLECTIONS OF BATES HALL.
- IV. VOLUMES LOCATED IN THE LOWER HALL.
- V. INCREASE OF THE SEVERAL DEPARTMENTS.
- VI. INCREASE FROM NEWLY PUBLISHED BOOKS.
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- IX. GIVERS AND AMOUNT OF GIFTS.
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- XIII. BATES HALL READING.
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- XIX. LIBRARY FUNDS.
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- XXI. REPORT OF EXAMINATION OF THE SHELVES.
- XXII. WORK IN THE LIBRARY BINDERY.
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APPENDIX I.

EXTENT OF THE LIBRARY BY YEARS.

YEARS.		Total volumes in the Libraries.	Pamphlets added from the begin- ning.	YEARS.		Total volumes in the Libraries.	Pamphlets added from the begin- ning.
1	1852-53	9,688	961	16	1867-68	144,092	47,254
2	1853-54	16,221	3,950	17	1868-69	152,796	61,177
3	1854-55	22,617	6,507	18	1869-70	160,573	74,770
4	1855-56	28,080	12,386	19	1870-71	179,250	89,746
5	1856-57	34,896	16,053	20	1871-72	192,958	100,383
6	1857-58	70,851	17,938	21	1872-73	209,456	112,153
7	1858-59	78,043	19,255	22	1873-74	260,550	134,628
8	1859-60	85,031	20,707	23	1874-75	276,918	150,921
9	1860-61	97,386	27,381	24	1875-76	297,873	181,653
10	1861-62	105,034	28,874	25	1876-77	312,010	196,958
11	1862-63	110,563	31,043	26	1877-78	345,734	212,414
12	1863-64	116,934	31,837	27	1878-79	360,963	227,010
13	1864-65	123,016	32,553	28	1879-80	377,225	236,534
14	1865-66	130,678	36,566	29	1880-81	390,982	250,495
15	1866-67	136,080	44,443	30	1881-82	404,221	261,056
				31	1882-83	422,116	275,425

NOTE.—The aggregate of pamphlets “added from the beginning” includes many since bound, singly or in groups (which are now counted among volumes), and a very large number of duplicates which are thrown out and put among the pamphlets held for exchange.

VOLUMES IN LIBRARY AND BRANCHES, 1882-83.

Central Library.	Bates Hall	249,440	East Boston	11,263
	Newspaper room	3,603	South Boston	10,961
	Duplicate room	14,173	Charlestown	24,825
	Lower Hall	38,164	Brighton	13,190
	Total, Central Library .	305,380	Dorchester	11,910
Roxbury Branch.	Fellowes Athenæum . .	8,385	South End	9,947
	City part	13,614	Jamaica Plain	8,976
	Total, Roxbury Branch	21,999	West Roxbury delivery . . .	3,144
			North End	521

APPENDIX II.

YEARLY INCREASE OF THE WHOLE LIBRARY BY PURCHASE AND BY GIFTS.

NOTE.—The increase of volumes is not the sum of those added by gift and purchase, etc., because lost and condemned books are deducted.

YEARS.	INCREASE.		GIFTS.		Purchases, including those charged to funds and added by exchange.		Fellows Athenæum. ²	Givers, excluding anonymous.
	Vols.	Pamph.	Vols.	Pamph.	Vols.	¹ Pamph.	Vols.	
1852-81	395,177	251,538	143,745	178,866	250,474	67,974	7,143	12,583
1881-82	12,239	10,561	5,291	8,773	15,986	2,068	745	520
1882-83	17,895	14,369	5,340	11,844	16,222	2,525	522	575

¹ Includes pamphlets added both by purchase and exchange, as taken from the Accession catalogue.

² Included in previous columns. The volumes are not the property of the Public Library, but form a part of the Roxbury branch, by agreement.

Details for the years 1852-81 can be found in Appendix II. to the Report for 1881.

APPENDIX III.

VOLUMES IN THE SPECIAL COLLECTIONS OF BATES HALL.

	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883
Patent library .	2,120	2,323	2,457	2,596	2,731	2,823	2,897	3,003	3,066	3,142	3,259
Bowditch libr'y ¹	2,542	2,542	2,542	2,542	2,592	2,932	3,043	3,060	3,152	3,224	3,456
Parker library ¹ ,	11,907	11,907	11,935	12,292	12,291	12,296	12,309	12,322	12,337	12,363	13,952
Prince library .	1,970	1,970	1,970	1,970	2,028	2,029	2,037	2,159	2,230	2,274	2,327
Ticknor library,	3,907	3,907	3,940	4,285	4,929	5,171	5,354	5,432	5,454	5,463	5,507
Barton library . . .	12,057	11,902	12,108 ²	12,804	13,950	14,210	14,301	14,360	13,487	13,610	
Franklin library . . .	...	...	...	...	...	...	...	...	202	240	292
Thayer library, . . .	...	...	...	...	...	...	...	...	...	893	920

¹ See Appendix VII.

² The number given in 1874 was as near as could be reckoned before the entry on the Accession catalogue was made. The number given in 1875 is what had actually been entered, and the full number is given since these dates.

APPENDIX IV.

VOLUMES LOCATED IN THE LOWER HALL.

	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883
Reported the preceding year	31,827	32,605	32,596	33,395	35,152	35,478	35,862	36,116	36,505	37,717	37,186
Added during the year	1,799	1,465	3,385	3,570	3,830	2,728	2,339	2,483	2,376	2,576	2,378
Total	33,626	34,070	35,981	36,965	38,982	38,206	38,201	38,599	38,881	40,293	39,564
Books transferred to Bates Hall		6	37	394	19	22	12	14	5	3	7
Books transferred to Branches and Duplicate room	342	166	10		27	755	11	297	1	606	
Condemned during the year	678	1,308	2,539	1,419	1,655	1,567	2,062	1,783	1,153	2,498	1,393
Losses of ten years					1,803						
Total left	32,605	32,596	33,395	35,152	*35,478	35,862	36,116	36,505	37,717	37,186	38,164

*Actual count.

NOTE.—The “Losses of ten years” are explained in Appendix X. to the Report for 1877.

APPENDIX V.

INCREASE OF THE SEVERAL DEPARTMENTS.

	1880	1881	1882	1883
<i>Bates Hall.</i>				
Gain in books . .	7,782	8,506	8,750	11,729
Condemned and transferred . .	24	184	19	25
Net gain	7,758	8,322	8,731	11,704
<i>Lower Hall.</i>				
Gain in books . .	2,483	2,376	2,576	2,378
Less transfers and condemned books	2,094	1,164	*	1,400
Net gain	289	1,212		978
<i>Newspaper room.</i>				
Gain in books . .	132	69	41	98
Less loss				
Net gain	132	69	41	98
<i>Duplicate room.</i>				
Gain by addition .	784	386	936	1,764
Less loss by exchanges, etc. . .	2,177	1,233	223	781
Net gain	1,393	847	713	983
<i>E. Boston branch.</i>				
Gain in books . .	649	587	596	604
Condemned and lost	406	377	372	379
Net gain	243	210	223	225
<i>S. Boston branch.</i>				
Gain in books . .	935	995	1,000	766
Condemned and lost	581	644	485	304
Net gain	354	351	515	462
<i>Roxbury branch.</i>				
Gain in city part .	778	811	839	1,090
Condemned and lost	333	335	260	757
Net gain	445	476	579	333
Fellowes Athenæum. (Net gain)	361	2,111	745	522
Total gain	806	2,587	1,324	855
<i>Charlestown branch.</i>				
Gain in books . .	1,310	1,568	1,533	1,326
Condemned and lost	340	425	675	561
Net gain	970	1,143	858	765
<i>Brighton branch.</i>				
Gain in books . .	273	183	108	140
Condemned and lost	27	26	56	97
Net gain	246	117	52	51
<i>Dorchester branch.</i>				
Gain in books . .	926	640	828	767
Condemned and lost	166	128	93	189
Net gain	760	512	735	578
<i>J. Plain branch.</i>				
Gain in books . .	539	450	460	569
Condemned and lost	18	23	96	195
Net gain	521	427	364	374
<i>South End branch.</i>				
Gain in books . .	368	215	410	515
Condemned and lost	110	206	197	288
Net gain	258	9	213	227
<i>Total increase.</i>				
Bates Hall gain .	7,758	8,322	8,731	11,704
Lower Hall gain .	389	1,212	loss 531	978
Newspaper room gain	132	69	41	98
Duplicate room gain			713	983
E. B. branch gain,	243	210	223	225
S. B. branch gain,	354	351	515	462
Rox. branch gain,	445	476	579	333
Fellowes Athenæum gain . .	361	2,111	745	522
Chn. branch gain,	970	1,143	858	765
Bri. branch gain .	246	117	52	51
Dor. branch gain .	760	512	735	578
J. P. branch gain .	521	427	364	374
S. E. branch gain .	258	9	213	227
W. Rox. branch gain				74
N. E. branch gain,				521
Total gain . . .	14,112	14,113	**13,239	17,895

* There is a loss of 531 volumes for 1882, owing to the transfer of a large number of duplicates to the duplicate room, and also to the fact that the number of books condemned this year exceeds those supplied.

** This total gain includes the 1 vol. at the West Roxbury delivery gained during 1882.

APPENDIX VI.

INCREASE FROM NEWLY PUBLISHED BOOKS.

	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883
English books with British imprint . . .	1,294	1,533	2,830	2,237	1,763	1,781	1,555	1,841	2,091	2,058
English books with American imprint . .	3,807	7,365	10,501	6,761	5,546	5,295	5,637	4,346	4,856	4,755
English books with Continental imprint .	125	375	316	180	191	233	238	186	235	232
Foreign books	858	767	1,858	1,742	1,269	1,372	1,399	1,245	1,411	1,427
Total	6,084	10,040	15,505	10,920	8,769	8,681	8,829	7,618	8,593	8,472

APPENDIX X.

CIRCULATION.

(Books issued.)

Year.	Number of whole days open.	TOTAL CIRCULATION.				BATES HALL.					LOWER HALL.					EAST BOSTON BRANCH.					SOUTH BOSTON BRANCH.					ROXBURY BRANCH.				
		Issues.	Daily average.	Largest No. in one day.	Date of last column.	Home use.	Hall use.	Total.	Daily average.	Largest daily use.	Home use. <i>a</i> (White slips.)	Hall use. (Green slips.)	Total.	Daily average.	Largest daily use.	Home use.	Hall use.	Total.	Daily average.	Largest daily use.	Home use.	Hall use.	Total.	Daily average.	Largest daily use.	Home use.	Hall use.	Total.	Daily average.	Largest daily use.
1873	308	467,855	1,519	3,073	c	28,261	31,003	59,264	192	388	230,111	7,946	238,057	772	1,443	67,754	458	68,212	6222	558	101,688	634	102,322	330	684	.....	.....	.....	.....	.....
1874	308	625,442	2,031	5,124	.....	34,441	37,872	72,313	235	544	245,244	7,853	253,097	822	1,535	80,771	320	81,091	263	712	107,651	915	108,566	350	762	64,092	3,250	67,342	263	612
1875	306	758,417	2,581	6,074	.....	41,721	39,016	80,737	263	603	264,825	8,009	272,834	864	1,759	85,134	414	85,548	277	789	111,677	848	112,525	364	860	87,079	2,460	89,539	285	686
1876	306	947,621	3,097	8,035	.....	54,956	59,873	114,829	373	877	338,450	10,392	348,842	1,140	2,598	89,949	1,038	99,987	293	856	113,334	988	115,530	370	1,045	98,304	2,993	101,297	320	925
1877	306	1,140,572	3,727	8,348	.....	66,832	74,786	141,618	463	930	392,995	12,737	405,732	1,326	2,439	101,022	1,605	102,627	335	902	131,969	3,210	135,179	430	1,075	140,059	6,770	146,829	477	1,190
1878	305	1,183,991	3,882	10,478	.....	80,326	66,670	146,996	483	1,001	378,439	12,736	391,175	1,265	2,902	104,717	1,879	106,596	343	1,088	137,010	3,741	140,751	447	1,414	122,517	7,513	130,030	404	1,100
1879	308	1,180,565	3,833	8,747	.....	74,627	89,163	163,790	532	926	350,521	12,672	363,193	1,179	2,085	95,887	2,794	98,681	320	916	115,509	3,335	118,844	503	1,200	123,492	6,397	129,889	403	1,013
1880	307	1,156,721	3,768	8,781	.....	69,042	101,100	170,142	554	1,045	306,148	10,369	316,517	1,031	1,999	105,197	3,004	108,201	303	951	138,309	5,261	143,570	467	1,196	119,450	5,480	124,930	388	1,017
1881	304	1,065,081	3,504	8,637	.....	68,609	96,764	165,373	547	1,046	257,592	9,271	266,863	847	1,849	97,024	4,097	101,118	318	989	129,251	3,607	132,858	435	1,137	105,700	4,912	110,612	360	972
1882	303	1,040,553	3,434	8,170	.....	63,782	103,540	167,322	552	1,052	239,601	11,191	250,792	828	1,670	88,901	7,073	95,974	328	868	125,409	4,077	129,486	426	1,074	101,534	4,739	106,273	347	876
1883	306	1,045,902	3,418	8,209	.....	66,948	113,127	180,075	588	1,181	163,811	32,119	195,930	640	1,301	92,833	8,107	100,940	329	876	121,939	4,472	126,411	413	1,062	105,797	6,728	112,525	370	906

Year.	CHARLESTOWN BRANCH.					BRIGHTON BRANCH.					DORCHESTER BRANCH.					SOUTH END BRANCH.					JAMAICA PLAIN BRANCH.					NORTH END BRANCH.		
	Home use.	Hall use.	Total.	Daily average.	Largest daily use.	Home use.	Hall use.	Total.	Daily average.	Largest daily use.	Home use.	Hall use.	Total.	Daily average.	Largest daily use.	Home use.	Hall use.	Total.	Daily average.	Largest daily use.	Home use.	Hall use.	Total.	Daily average.	Largest daily use.	Hall use.	Daily average.	Largest daily use.
1874	32,023	1,368	33,391	327	734	9,642	.....	9,642	88	225	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1875	78,169	1,206	79,375	259	704	21,394	448	21,842	70	234	15,675	132	16,017	197	439	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1876	84,631	1,184	85,815	279	830	23,531	1,274	24,805	81	314	63,357	899	56,016	206	552	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1877	105,211	1,695	106,916	348	902	27,832	1,960	29,792	97	290	67,692	4,287	71,979	220	620	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1878	99,537	2,093	101,540	332	970	27,549	1,698	29,247	89	328	63,025	1,949	64,974	197	624	41,303	1,099	42,402	188	667	28,174	2,106	30,280	138	384	.....	.....	.....
1879	86,925	1,815	88,740	289	685	26,737	1,859	28,596	93	312	56,785	1,423	59,673	184	575	73,154	2,713	75,867	247	622	50,457	2,503	52,960	171	413	.....	.....	.....
1880	73,302	1,446	74,748	246	616	26,406	1,574	27,980	91	302	55,690	1,026	56,716	176	541	77,016	2,275	79,291	258	680	52,406	2,220	54,626	176	437	.....	.....	.....
1881	78,682	2,140	80,822	273	789	26,067	2,110	28,177	85	269	53,904	730	55,188	177	541	71,432	2,530	73,962	242	578	47,797	2,311	50,108	164	467	.....	.....	.....
1882	85,038	2,251	87,319	254	741	25,152	2,292	27,444	89	277	53,036	1,449	54,485	144	561	61,453	10,283	71,736	318	670	46,316	3,406	49,722	164	381	.....	.....	.....
1883	84,599	2,744	87,304	285	775	25,965	2,295	28,257	92	273	65,678	1,880	67,558	219	650	76,472	17,778	94,250	308	774	44,758	4,379	49,137	161	411	3,515	20	99

a Includes books borrowed on white slips, and returned the same day.

b The E. B. branch was open only 307 days, owing to repairs on furnace.

c Includes the largest of each department on any day, without regard to its being the same day, as in the previous entry under this head.

d The use of the Dorchester branch for 1875 was a little over three months.

e The East Boston branch was closed from October 7th to 9th, 1879, for repairs; South Boston from August 12th to November 2d, 1879, for repairs and enlargement.

f The Charlestown branch was closed from April 20th to the 30th, to rearrange the books, and also from May 1st to the 11th, 1880.

g The East Boston branch was closed 25 working-days.

" South End " " " 85 " "

" Dorchester " " " 6 " " during 1882.

The North End branch was open 177 days during 1883.

APPENDIX VIII.

LOWER HALL CLASSIFICATIONS.

CLASSES.	1882				1883	To be de- ducted.		
	Total May 1.	New books added.	Duplicates added.	Condemned books replaced.	Total added 1882-83.	Transferred to B. H.	Condemned.	Total in L. H. May 1, 1883.
Theology, moral and intellectual science, etc.	1,961	46	..	3	49	..	5	2,005
Jurisprudence and political science	385	13	2	1	16	..	2	399
Medicine, mathematics, physics or natural science . .	2,558	78	11	20	109	..	12	2,655
Useful and fine arts, military and naval science . . .	918	55	8	9	72	..	11	979
American history and politics	1,169	34	26	19	79	3	19	1,226
Foreign history and politics	1,571	33	5	3	41	..	6	1,606
Poetry, drama, oratory, rhetoric	3,279	80	14	29	123	1	37	3,364
English prose fiction, including juvenile fiction, and other juvenile books	13,195	347	151	845	1,343	..	1,040	13,498
Biography	2,732	97	7	22	126	1	31	2,826
Travels	2,355	71	17	33	121	..	35	2,441
Libraries, collections, periodicals, etc.*	3,800	103	32	75	210	..	156	3,854
German books	1,524	36	..	12	48	..	26	1,546
Italian books	158	..	..	..	..	2	..	156
French books	1,152	21	..	8	29	..	10	1,171
Spanish books	3	1	..	..	1	..	..	4
Books of reference	426	11	..	..	11	..	3	434
Extent of L. H. collection	37,186	1,026	273	1,079	2,378	7	1,393	38,164
Reported last year	37,186							
Gain in 1882-83	.978							

* This class, embracing sets like Bohn's "Libraries," etc., includes many books, of course, which, in a minute classification, would have been divided among all the previous heads of this table.

NOTE.—The column of "Condemned books replaced," includes books condemned in previous years as well as in the current year. The column "Total added" shows the number of volumes as put upon the shelves, counting as one those bound two volumes in one, etc.

APPENDIX IX.

GIFTS, MAY 1, 1882, TO APRIL 30, 1883.

Givers (excluding anonymous)	575
Volumes	5,340
Pamphlets	11,844

GIVERS.	Vols.	Pphs.
Abbott, Samuel A. B.	2	
Academy of Natural Sciences, <i>Philadelphia, Pa.</i>		1
Aldrich, A. J., & Co., <i>Coldwater, Mich.</i>		1
Allibone, S. Austin, <i>New York City</i>	1	
Almy, Francis, <i>Chicago, Ill.</i>		2
Almy, Frederic, <i>New Bedford</i>		2
American Academy of Arts and Sciences		1
American and Foreign Bible Society		5
American Antiquarian Society, <i>Worcester</i>	1	2
American Association for the Advancement of Science, <i>Salem</i>	1	
American Bar Association		5
American-Belgian Chamber of Commerce, <i>Philadelphia, Pa.</i>		1
American Board of Commissioners for Foreign Missions		12
American Ephemeris and Nautical Almanac Office, <i>Washington, D. C.</i>	1	1
American Institute of Mining Engineers, <i>Easton, Pa.</i>	1	
American Iron and Steel Association, <i>Philadelphia, Pa.</i>	1	4
American Pharmaceutical Association, <i>Philadelphia, Pa.</i>	2	
American Society of Civil Engineers, <i>New York City</i>	1	2
American Swedenborg Printing and Publishing Society	108	
American Unitarian Association		2
Anonymous, 3 charts	109	1,053
Anthony, Susan B., <i>Rochester, N. Y.</i>	3	
Appleton, Nathan	2	
Appleton, William S.	1	
Archæological Institute of America	1	
Armas, Juan Ignacio de, <i>Havana, Cuba</i>	1	
Arnold, Howard Payson	1	
Arnold Arboretum, <i>Brookline</i>		1
Atchison, Topeka, & Santa Fé Railroad Company		3
Baker, Henry A., <i>D. D. S.</i>		3
Balfour, David M.	1	3
Ballou, Maturin M.	2	
Bancroft, Harlow P., <i>San Francisco, Cal.</i>		1
Bangs, E. D., <i>Amherst</i>		1
Barlow, Samuel L. M., <i>New York City</i>	1	
Barry, T. S.		1
Bartlett, Mrs. M. D., <i>Mendon</i>		1
Barton, Rev. Walter, <i>Lynn</i>		1
Basford, James L.	1	
Beal, Hon. George L., <i>Augusta, Me.</i>	1	
Bell, Alexander G., <i>Ph. D., Washington, D. C.</i>		1

GIVERS.	Vols.	Pphs.
Benét. <i>Brig.-Gen. S. V., Washington, D.C.</i>	2	
Bernhard, <i>Mrs. Louisa</i>	1	
Bigelow, <i>Mrs. E. B.</i>	138	
Bigelow, Henry J., <i>M.D.</i>	927	749
Biker, Julio F. J., <i>Lisbon, Portugal.</i>	1	1
Bishop, Charles J.		1
Blaisdell, Frank C.	1	
Blake, Eli W., <i>New Haven, Conn.</i>	1	
Blodgett, Albert N., <i>M.D.</i>		5
Blood, <i>Mrs. James G.</i>	1	
Boardman, <i>Mrs. W. L. P.</i>	1	
Bolles, William P., <i>M.D.</i>	16	
Bolton, H. Carrington, <i>Ph. D., Hartford, Conn.</i>		1
Bontemps, George, <i>Amboise, France</i>		1
Boston, City of, 3 maps, 6 newspapers	380	370
— Assessors' Department	17	
— Auditor of Accounts	4	66
— Board of Health		2
— Fire Commissioners, 1 engraving	1	
— Fish Bureau		1
— Harbor Master		1
— Overseers of the Poor	1	
— Police Commissioners		4
— Registrar		2
— School Committee	1	
— Water Board	7	
Boston Commercial Exchange		2
Boston Gas Light Company	4	
Boston University	1	2
Boston Young Men's Christian Union		1
Boston Zoölogical Society		1
Boston & New York Air-Line Railroad Company		1
Bourinot, John G., <i>Ottawa, Canada.</i>	1	1
Boutwell, Francis M., <i>Groton</i>		1
Bowdoin College, <i>Brunswick, Me.</i>		2
Bowman, <i>Hon. S. Z., Washington, D.C.</i>	6	1
Brace, Charles L., <i>New York City</i>	1	
Brackett, C. A., <i>D.M.D., Newport, R.I.</i>		1
Bradford, Charles F.	1	
Bradlee, <i>Rev. Caleb D., a lot of broadsides, 2 maps, 119 newspapers, 2 photographs</i>	18	350
Brewer, <i>Mrs. Gardner</i>	2	
Bridgeport, <i>Conn., Public Library</i>		1
Brigham, William T., 1 map	1	1
Brighton Health Congress, <i>Brighton, England</i>	1	
British Museum, <i>London</i>	4	
Brookline Civil Service Reform Association, <i>Brookline</i>		1
Brooklyn Library, <i>Brooklyn, N.Y.</i>		13
Brooks, <i>Rev. William Henry, Hanover</i>		13
Brophy, Thomas C.		35
Brown, Francis H., <i>M.D., 7 broadsides</i>	4	70
Brown, J. C. J.	1	
Brown, J. Hurd	1	
Brown, <i>Mrs. John Carter, Providence, R.I.</i>	1	
Brown, W. Symington, <i>M.D.</i>	1	
Brown University, <i>Providence, R.I.</i>		1
Budapest, <i>Hungary, Statistical Bureau</i>		4
Bulkeley, <i>Hon. Morgan E., Hartford, Conn.</i>	1	
Burnham, Sherburne W., <i>Chicago, Ill.</i>	1	1

GIVERS.	Vols.	Ppms.
Butler, James D., <i>LL.D., Madison, Wis.</i>		4
Butts, Bryan J., <i>Hopedale</i>		1
Byram, Edward R.	1	
Calvert, George H., <i>Newport, R.I.</i>	3	
Campbell, John L., <i>Indianapolis, Ind.</i>		1
Campbell, Samuel S.		1
Canada, Geological and Natural History Survey, <i>Montreal</i>	1	
Candler, <i>Hon. John W., Brookline</i>		15
Capen, John		1
Carret, José F.		15
Cartée, Cornelius S., <i>M.D.</i>	7	
Cayuga County Historical Society, <i>Auburn, N.Y.</i>		3
Chamberlain, <i>Hon. Mellen</i>		1
Chandler, Horace P., <i>39 newspapers</i>		135
Chapin, Alfred C., <i>New York City</i>	2	
Chase, George B.		1
Cheney, <i>Rev. Oren B., D.D., Lewiston, Me.</i>		3
Chicago Athenæum, <i>Chicago, Ill.</i>		2
Chicago Historical Society, <i>Chicago, Ill.</i>	1	
Children's Hospital	44	
Childs, George W., <i>Philadelphia, Pa.</i>		1
Christern, F. W., <i>New York City</i>	3	
Christian Register Association	1	
Christian Union, <i>New York City</i>		1
Chute, J. M.		1
Cincinnati Observatory, <i>Mt. Lookout, Ohio</i>		1
Claflin, <i>Hon. William</i>	1	
Clapp, Herbert C., <i>M.D.</i>	1	
Clark, <i>Rev. George F., Mendon</i>		1
Clarke, <i>Rev. James Freeman, D.D.</i>		84
Clarry, <i>Miss C. F.</i>	1	
Cobb, <i>Hon. Samuel C.</i>	1	
Cobden Club, <i>London</i>	2	8
Colby University, <i>Waterville, Me.</i>		2
Collet, C. D., <i>London</i>	16	1
Collet, <i>Prof. O. W., St. Louis, Mo.</i>		2
Comité Central Russe de Statistique, <i>St. Petersburg, Russia</i>	1	
Commission Géodésique de la Norvège, <i>Christiania, Norway</i>		4
Connecticut Board of Education	1	
Connecticut Academy of Arts and Sciences, <i>New Haven, Conn.</i>		2
Cook, Clarence, <i>New York City</i>	15	
Cook, George H., <i>Trenton, N.J.</i>	1	
Cook, George J.	1	
Cooke, <i>Mrs.</i>	1	
Cooley, <i>Mrs. Mary E., Adrian, Mich.</i>		1
Cornell University, <i>Ithaca, N.Y.</i>	1	1
Costello, Martin J., <i>Clinton</i>		1
Cotton, <i>Mrs. Lizzie E., West Gorham, Me.</i>	1	
Courtenay, <i>Hon. William A., Charleston, S.C.</i>	1	
Cox, <i>Hon. William R., Washington, D.C.</i>		1
Crane, Phineas M., <i>M.D.</i>		33
Crawford, T. H., <i>Portland, Oregon</i>		1
Crosby, John L., <i>Bangor, Me.</i>	1	
Crunden, Frederick M., <i>St. Louis, Mo.</i>		2
Cullum, <i>Brig.-Gen. George W., New York City</i>		3
Cummings, T. H.	1	
Curtis, <i>Prof. H. S., West Point, N.Y.</i>		10
Cushings & Bailey, <i>Baltimore, Md.</i>		1

GIVERS.	Vols.	Pphs.
Cutter, Abram E.		2
Dahlgren Post 2, G.A.R.	2	
Dalton, Joseph G.	14	3
Davis, <i>Hon.</i> Alonzo, <i>Fitchburg</i>	1	
Davis, Robert C., <i>Ann Arbor, Mich.</i>		18
Dawson, Henry B., <i>New York City</i>		1
Day, Albert, <i>M.D.</i>		1
Delaware Historical Society, <i>Wilmington, Del.</i>		1
Dennet, Charles F., <i>Brighton, England</i>		1
Depping, Guillaume, <i>Paris, France</i>		2
Derby, Orville A., <i>Rio de Janeiro, Brazil</i>	1	
Devoe, F. W., & Co., <i>New York City</i>	1	
De Voe, Thomas F., <i>New York City</i>	1	
Dexter, George		2
Dexter, Julius	1	
Dickerman, <i>Rev.</i> Lysander	2	
Dillaway, Charles K.	19	
Dixey, Wolstan, 12 newspapers		
Dixwell, George B.	2	
Dodd's Newspaper Advertising Agency		1
Dodge, James H.	2	
Dorr, <i>Miss</i> Caroline, lot of newspapers	130	609
Dryden, <i>Miss</i> Minta I., <i>Dayton, Ohio</i>	1	1
Duane, William, <i>Philadelphia, Pa.</i>		10
Duffield, <i>Rev.</i> Samuel W., <i>Bloomfield, N.J.</i> , 1 newspaper		
Dunnell, <i>Hon.</i> Mark H., <i>Washington, D.C.</i>		1
Duren, Elnathan F., <i>Bangor, Me.</i>		1
Dwight, Theodore F., <i>Washington, D.C.</i>		6
Eads, H. L., <i>South Union, Ky.</i>	1	
Eaton, <i>Prof.</i> D. Cady, <i>New Haven, Conn.</i>		2
Edes, Henry H.		1
Edes, Robert T., <i>M.D.</i>	50	60
Edison Electric Light Company, <i>New York City</i>		14
Edmands, Thomas J.	1	
Eigenbrodt, <i>Rev.</i> William E., <i>D.D.</i> , <i>New York City</i>		1
Ellicott, Joseph P.	1	
Elze, <i>Dr.</i> Karl, <i>Halle, Germany</i>		1
Emery, George E., <i>Lynn</i>	10	
Ernst, C. W.	93	
Essex Institute, <i>Salem</i>	2	
Evening Post Publishing Company, <i>New York City</i>	2	
Fairmount Park Art Association, <i>Philadelphia, Pa.</i>		2
Fall, Charles G.		1
Fall River, Public Library	2	2
Fernald, <i>Prof.</i> O. M.	4	18
Fernandez, Leon, <i>San José, Costa Rica</i>	2	
First Church, <i>Lynn</i>	1	
First Religious Society, <i>Roxbury</i>	1	
Firth, A., 1 map	1	77
Fisher, Charles H., <i>M.D.</i> , <i>Providence, R.I.</i>	1	
Fitz, Reginald H., <i>M.D.</i> , 42 newspapers	28	59
Fletcher Free Library, <i>Burlington, Vt.</i>		2
Floye, W. J.		7
Flügel, <i>Dr.</i> Felix, <i>Leipzig, Germany</i>	8	14
Folsom, Albert A.	3	11
Forbes, J. M.	1	
Ford, William E.		1
Forster, Edward J., <i>M.D.</i>	146	32
Foster, W. E., <i>Providence, R.I.</i>		2

GIVERS.	Vols.	Pphs.
Foster, William H.		1
Fox, <i>Capt. G. V., U.S.N.</i>	1	
France, Ministry of Public Instruction	1	3
Frazer, <i>Prof. P., Philadelphia, Pa.</i>	1	
French, John D. W.	3	
Fteley, A.		1
Fuller, <i>Miss Edith D.</i>		11
Gauthier, <i>Mme. Victor</i>	1	
Georgia Historical Society, <i>Savannah, Ga., 2 newspapers</i>		
Gerould, <i>Rev. Samuel L., Goffstown, N.H.</i>		1
Gibbs, J. Willard, <i>Philadelphia, Pa.</i>	1	
Giles, Alfred E., <i>Hyde Park</i>		1
Gillman, Henry, <i>Detroit, Mich.</i>		1
Globe Newspaper Company	3	
Gloucester, City of	1	
Gould, Benj. A., <i>Ph.D., Córdoba, Argentine Republic</i>	3	
Gould, S. C., <i>Manchester</i>	2	
Grand Royal Arch Chapter of Rhode Island, <i>Providence, R.I.</i>	1	
Gray, <i>Miss Ann G.</i>	14	
Great Britain, Commissioners of Patents	66	163
Green, S. W., <i>New York City</i>		1
Green, <i>Hon. Samuel A., M.D., 15 broadsides, 1 chart, 73 maps, 48 portraits, 32 prints</i>	28	282
Greenough, Harry P., <i>San Francisco, Cal.</i>	1	
Greenough, Malcolm S.		64
Greenough, W. A., & Co.	1	
Greenough, William W.	19	81
Groo, <i>Hon. William J., Middleton, N.Y.</i>		1
Groton, Town of		1
Hale, <i>Rev. Edward E., D.D.</i>	20	
Hale, George S., 3 maps	6	43
Hallett, <i>Hon. W. H., Brighton, England</i>	1	
Hampshire, Franklin & Hampden Agricultural Society, <i>Northampton</i>		6
Harlan, Caleb, <i>M.D., Wilmington, Del.</i>	2	
Harlow, James H., <i>Pittsburgh, Pa.</i>	1	
Harney, George J., <i>Cambridge</i>		2
Harris, Samuel T.	2	
Harrison, J. B., <i>Franklin Falls, N.H., 2 broadsides</i>		2
Hart, Charles H., <i>Philadelphia, Pa.</i>	5	33
Hassam, John T.		1
Hawkins, Dexter A., <i>New York City</i>		7
Hayes, <i>Miss Abby Stanley</i>		2
Haynes, <i>Prof. Henry W.</i>	2	1
Hazard, Thomas R., <i>Vaucluse, R.I.</i>	1	
Head-quarters of the Military Division of the Missouri, <i>Chicago, Ill.</i>		1
Herrick, <i>Hon. R. R., Cleveland, Ohio</i>	1	
Hildeburn, Charles R., <i>Philadelphia, Pa.</i>		1
Hill, <i>Hon. Hamilton A.</i>	9	
Hill, Walter H., Jr.		1
Hinds, J. I. D., <i>Ph.D., Lebanon, Tenn.</i>		1
Hoar, <i>Hon. E. R., Concord</i>	1	
Hoar, <i>Hon. George F.</i>	5	
Holder, Thomas W.	1	
Hollis, John W.	4	
Homes, Henry A., <i>LL.D., Albany, N.Y.</i>	6	
Houghton, Mifflin, & Co., 4 calendars		

GIVERS.	Vols.	Pphs.
Howland, Joseph, <i>Matteawan, N. Y.</i>	6	4
Hughes, Hon. John, <i>Liverpool, England</i>	1	
Hunnewell, James F.	1	1
Huntington, Mrs. L. A.	20	
Huntington, W. H.	1	
Hutchins, Rev. B. T., <i>Philadelphia, Pa.</i>		1
Institution of Civil Engineers, <i>London</i>	4	
Iowa Historical Society, <i>Iowa City</i>		1
Italy, Ministry of Agriculture, <i>Rome</i>	1	
James Lick Trust, <i>San Francisco, Cal.</i>		1
Jay, John, <i>Katonah, N. Y.</i>	1	
Jeffries, B. Joy, <i>M.D.</i> , 7 maps	107	297
Johnson, Rev. Samuel, Family of	2	
Jones, E. U., <i>M.D.</i>		1
Judd, Chauncy P.		3
Kaiserliche Königliche Geologische Reichsanstalt, <i>Vienna, Austria</i>	1	1
Kennedy, Frederick C., <i>Burlington, Vt.</i>		1
Knapp, Arthur M., 5 broadsides	11	35
Knapp, George B.	9	4
Knapp, Prof. William I., <i>New Haven, Conn.</i>		1
Knowlton, T. S., <i>West Brookfield</i>		2
Kongelige Fredericks Universitet, <i>Christiania, Norway</i>	4	2
Korschelt, O., <i>Tokio, Japan</i>	1	
Krewson, W. E., <i>Philadelphia, Pa.</i>		1
Lancaster Town Library	1	
Lang, Hon. Henry, <i>Newark, N.J.</i>	1	
Latham, Williams, <i>Bridgewater</i>	1	
Lathers, Richard, <i>New York City</i>		1
Laurie, Rev. Thomas, <i>D.D.</i> , <i>Providence, R.I.</i>		1
Lawrence, Abbott, 1 map	1	40
Lawrence, Richard H., <i>New York City</i>		1
Lawrence Academy, <i>Groton</i>		1
Lee, John W. M., <i>Baltimore, Md.</i>	1	
Leicester Public Library		1
Leicester Literary & Philosophical Society, <i>Leicester, England</i>		2
Le May, Léon P., <i>Quebec, Canada</i>	1	
Lenox Library, <i>New York City</i>		9
Leve & Alden	1	1
Lewis, John A.	1	
Library Company of Philadelphia		2
Lincoln, Francis H.	1	2
Literary and Historical Society, <i>Quebec, Canada</i>		1
Lockwood, Brooks, & Co.	1	1
Long Island Historical Society, <i>Brooklyn, N. Y.</i>		1
Lowell, Mrs. John		195
Loyal Legion of the United States, Massachusetts Commandery	2	1
Ludington, J.	1	
Ludwig Salvator, Arch-Duke, <i>Prague, Austria</i>	10	
Lyon, W. B., <i>San Francisco, Cal.</i>		1
McCleary, Samuel F.	41	247
McDanolds, James S., <i>Trenton, N.J.</i>	2	
MacDonald, Carlos F., <i>M.D.</i> , <i>Auburn, N. Y.</i>		1
MacDonald, Frank V., <i>San Francisco, Cal.</i>	1	
Macé, Jean, <i>Monthiers, France</i>	1	
McPhetres, Samuel A., <i>Lowell</i>	1	
Mallinckrodt, James F., <i>St. Louis, Mo.</i>	1	

GIVERS.	Vols.	Pphs.
Manchester, <i>England</i> , Public Free Libraries		1
Manning, Jacob W.		2
Marcus, Alfred A., and family	1	
Marcy, Henry O.		2
Massachusetts, State of	18	13
—— Bureau of Statistics of Labor	12	
—— Library	10	
Massachusetts College of Pharmacy		1
Massachusetts Historical Society, 3 newspapers	2	
Massachusetts Horticultural Society		2
Massachusetts Medical Society		1
Massachusetts Universalist Convention		1
Maxwell, Sidney D., <i>Cincinnati, Ohio</i>	1	
May, Miss Abby W.	3	118
Mechanics' Institute, <i>San Francisco, Cal.</i>	1	
Medical & Chirurgical Faculty of Maryland, <i>Baltimore, Md.</i>		1
Medical Journal Publishing Company, <i>St. Louis, Mo.</i>	1	
Melbourne, <i>Australia</i> , Public Library		1
Mercantile Library, <i>San Francisco, Cal.</i>		1
Michigan, State of, <i>Lansing</i>	1	
—— Railroad Commissioner	1	
—— State Library	25	
Milwaukee, <i>Wis.</i> , Public Library	1	
Minnesota, State Board of Health, <i>Red Wing, Minn.</i>		1
Missouri Historical Society, <i>St. Louis, Mo.</i>		4
Mitchell, Clifford, <i>M.D., Chicago, Ill.</i>	1	
Montague, Rev. Richard, <i>Providence, R.I.</i>		1
Moon, William, <i>LL.D., Brighton, England</i> , 200 broad-sides	351	
Morgan, Henry J., <i>Ottawa, Canada</i>		1
Morrison, Nathan J., <i>D.D., Springfield, Mo.</i>		1
Morse, Hon. Leopold	97	4
Morse, William B.	1	
Morse Institute, <i>Natick</i>	1	
Murdock, A. L., 12 maps	42	239
Murphy, Hon. Charles M., <i>Dover, N.H.</i>	1	
Museum of Comparative Zoölogy, <i>Cambridge</i>	1	1
Nagle, John T., <i>M.D., New York City</i>		2
National Association of Wool Manufacturers	1	1
National Board of Health, <i>Washington, D.C.</i>		1
New Bedford, City of	1	
—— Free Public Library	1	1
New England Manufacturers' and Mechanics' Institute	1	
New Hampshire, State of	2	
—— Library, <i>Concord, N.H.</i>	13	
New Jersey, State Geologist, <i>Trenton, N.J.</i>		5
New York City Mission and Tract Society, <i>New York City</i>		1
New York Historical Society, <i>New York City</i>	1	
New York Produce Exchange, <i>New York City</i>	1	
New York State Library, <i>Albany, N.Y.</i>	4	
Newbrough, Dr. W. J., <i>New York City</i>	1	
Newburyport, City of	1	
—— Public Library	1	1
Nichols, Mrs. B. W.		36
Nichols, James R.	1	
Nichols, Mrs. Mary P.		95
Northumberland, <i>Duke of, London</i>	2	
Norwegian North-Atlantic Expedition. Editorial Committee, <i>Christiania, Norway</i>		2

GIVERS.	Vols.	Pphs.
Nourse, Henry S., <i>Lancaster</i>		3
Noyes, Charles J.	2	
Numismatic and Antiquarian Society, <i>Philadelphia, Pa.</i>		1
Odd Fellows' Library Association, <i>San Francisco, Cal.</i>		1
Ohio Mechanics' Institute, <i>Cincinnati, Ohio</i>		1
Ohio State Library, <i>Columbus, Ohio</i>	13	2
Oliver, Mrs. J. P., 4 newspapers	2	87
Olney, Peter B., <i>New York City</i>	1	
Oregon State Medical Society, <i>Portland, Oregon</i>		3
Owings, N. H., <i>Olympia, Washington Territory</i>	1	
Packard, Rev. E. N.		2
Paine, Nathaniel, <i>Worcester</i>		5
Panin, Ivan, <i>Cambridge</i>		1
Paris, <i>France, City of</i>	2	
—— Municipal Council	4	
Parish, Roswell	2	135
Park, Rev. Edwards A., <i>D.D., Andover</i>		1
Parmenter, Hon. William E., <i>Arlington</i>		2
Parsons, Charles E., <i>Lynn</i>	2	
Peabody Museum of American Archæology and Ethnology, <i>Cambridge</i>		1
Pennsylvania Academy of Fine Arts, <i>Philadelphia, Pa.</i>		3
Perry, Thomas S., 2 broadsides	36	31
Phelps, Hon. Edward J., <i>Burlington, Vt.</i>		1
Philadelphia Society for Organizing Charity, <i>Philadelphia, Pa.</i>	1	
Phillips, Wendell, 6 broadsides, 2 maps, a lot of newspapers	1,303	4,682
Pittsburg, <i>Pa., City of</i>	1	
Plymouth, <i>England, Free Public Library.</i>		2
Pool, Wellington, <i>Wenham</i>		1
Poole, William F., <i>Chicago, Ill.</i>		2
Porter, Rev. Edward G., <i>Lexington</i>		2
Portland, <i>Me., City of</i>	1	
Pray, Lewis Glover, Estate of		40
Prescott, B. F.	1	
Preston, Edward, <i>London</i>	1	
Prince, C. Leeson, <i>Crowborough, England</i>	1	
Prince, Hon. Frederick O.	1	
Prisoners' Aid Association, <i>Chicago, Ill.</i>		1
Proctor, Lewis A., <i>Milwaukee, Wis.</i>	1	
Providence, <i>R.I., Auditor</i>		1
—— Public Library		1
Putnam, Benjamin W.		1
Putnam, Hon. Horace B., <i>Manchester, N.H.</i>	1	1
Putnam, Burr, & Co.		1
Quincy, Miss Eliza S., <i>Wollaston</i>	8	6
Ray, Richard		3
Reale Biblioteca Nazionale, <i>Florence, Italy</i>	4	8
Reale Istituto-Lombardo di Scienze e Lettere, <i>Milan, Italy</i>	1	
Redpath Lyceum Bureau		1
Reed, John H., <i>Cotuit</i>	1	
Rhode Island, State Board of Health, <i>Providence, R.I.</i>	2	
Rhode Island Historical Society, <i>Providence, R.I.</i>		5
Richardson, Miss Susan C.	2	
Rideing, William H.	2	27
Roberts, George, <i>York, England</i>	1	
Robertson, Hon. John B., <i>New Haven, Conn.</i>	1	

GIVERS.	Vols.	Pphs.
Robinson, F. T.	1	
Robinson, S., <i>Glasgow, Scotland</i>	1	
Rolfe, William J., <i>Cambridge</i>	3	
Ross, W. T., <i>Louisville, Ky.</i> , 1 broadside		
Rotherham, <i>England</i> . Free Public Library		1
Royal Astronomical Society, <i>London</i>		1
Royal Observatory, <i>Greenwich, England</i>	1	
San Francisco, <i>Cal.</i> , Free Public Library	2	
Sawyer, Hon. Timothy T.	2	
Schlegel & Fottler		1
Scudder, Samuel H., <i>Cambridge</i>	1	4
Seeley, Montessor S., <i>Woburn</i>	1	
Seymour, Hon. Norman, <i>Mt. Morris, N. Y.</i>		6
Shaw, B. S.	1	
Shaw, Samuel S.	1	
Sheffield, <i>England</i> , Central Library		1
Sheridan, Lieut.-Gen. P. H., <i>Chicago, Ill.</i>		1
Shimmin, Charles F.	123	19
Shirley, Hon. John M., <i>Andover, N. H.</i>	1	
Sinnickson, Robert, <i>Trenton, N. J.</i> , 102 broadsides		
Slack, Charles W.	1	
Slocum, Charles E., <i>M. D., Syracuse, N. Y.</i>	1	
Smith, Charles C.		4
Smith, W. L., <i>Lansing, Mich.</i>	1	
Smith, Walter		9
Smithsonian Institution, <i>Washington, D. C.</i>	4	2
Smyth, C. Piazzzi, <i>Edinburgh, Scotland</i>	2	
Snow, Edwin M., <i>M. D., Providence, R. I.</i>		1
Société de Géographie, <i>Paris, France</i>	7	
Société Historique de Montréal, <i>Montreal, Canada</i>		1
Spangler, William W., <i>Bloomington, Ind.</i>		1
Starck, E. G.	1	
State Historical Society of Wisconsin, <i>Madison, Wis.</i>		1
Stearns, Robert E. C., <i>Berkeley, Cal.</i>		4
Stennett, W. H., <i>Chicago, Ill.</i>	1	
Stevens, Abel F., <i>Natick</i>		6
Stevens, Henry, <i>London</i>		1
Stockwell, Thomas B., <i>Providence, R. I.</i>	4	
Strahan, Thomas, <i>Chelsea</i>		1
Strict-Constructionist Publishers, 70 newspapers		
Strout, James C., <i>Washington, D. C.</i>		1
Stryker, Adj.-Gen. William S., <i>Trenton, N. J.</i>		3
Suplée, Thomas D., <i>San Francisco, Cal.</i>	1	
Swansea, <i>Wales</i> , Public Library		1
Sweet, Frank	1	
Swift, Lindsay		4
Taylor, Daniel T., <i>Hyde Park</i>		1
Taylor, Edward, <i>Andover</i>		1
Teele, Rev. A. K., <i>Milton</i>		1
Thayer, Miss C. C., & Mrs. R. A. Nichols	2	
Thayer, Samuel J. F.	1	
Thompson, Rev. Augustus C., <i>D. D.</i>	1	1
Thompson, Mrs. Elizabeth, <i>New York City</i>	2	
Thomson, John H., <i>Santa Fé, New Mexico</i>		16
Tileston, Miss Mary W., <i>Salem</i>	3	
Towne, E. H., <i>Worcester</i>	1	
Trübner & Co., <i>London</i>		1
Tucker, W. W.	2	
Tuttle, Rev. Joseph F., <i>D. D., Crawfordsville, Ind.</i>		2

GIVERS.	Vols.	Ppms.
Tyndale, <i>Mrs. Hector, Philadelphia, Pa.</i>	1	
Union Ferry Company, <i>Brooklyn, N. Y.</i>	1	
Union Lodge	1	
United Polish National Benevolent Society, <i>Chicago, Ill.</i>	1	
United States. Adjutant General	2	3
— Army, Surgeon-General	1	1
— Board of Indian Commissioners	1	
— Bureau of Education	1	12
— Bureau of Engineers, 1 map	6	
— Bureau of Statistics	1	4
— Census Bureau	1	11
— Coast & Geodetic Survey	3	
— Department of Agriculture	1	17
— Department of the Interior	62	3
— Department of Justice	1	
— Department of the Navy		2
— Department of State	51	1
— Department of the Treasury	1	1
— Department of War	4	
— Director of the Mint		3
— General Land Office, 1 map		
— Geological Survey	2	
— Hydrographic Office	2	106
— Library of Congress	2	
— Light-house Board		2
— Marine Hospital Service		2
— Military Academy, <i>West Point, N. Y.</i>		1
— Naval Observatory	6	1
— Navy, Surgeon-General	1	
— Patent Office	34	
— Signal Service	6	5
— Supervising Inspector-General of Steamboats		1
United States Naval Institute, <i>Annapolis, Md.</i>		4
University of Kiel, <i>Germany</i>		28
University of Michigan, <i>Ann Arbor, Mich.</i>		3
University of Minnesota, <i>Minneapolis, Minn.</i>	1	
University of Rochester, <i>Rochester, N. Y.</i>		1
Van Etto, <i>Prof. E.</i>	3	
Victoria Public Library, <i>Melbourne, Australia</i>	2	
Wadsworth, <i>M. E., Ph.D., Cambridge</i>		10
Walcott, <i>Charles F.</i>	1	
Waldo, <i>Miss Phœbe M., Salem.</i>		4
Walker, <i>Francis A.</i>	6	20
Walker, <i>Isaac, Pembroke, N. H.</i>		1
Ware, <i>Rev. L. G., Burlington, Vt.</i>		1
Ware, <i>William, & Co.</i>		1
Waring, <i>George E., jr., Newport, R. I.</i>		2
Warren, <i>J. Collins, M.D.</i>	29	2
Warren, <i>Joseph H., M.D., and James R. Osgood & Co.</i>	1	
Waterloo Library and Historical Society, <i>Waterloo, N. Y.</i>	1	
Weckherlin, <i>G. de, Minister from the Netherlands</i>	1	
Wheelwright, <i>John T.</i>		1
Whipple, <i>E. P.</i>	1	
Whitcher, <i>Miss Mary, Shaker Village, N. H.</i>		2
White, <i>James C., M.D.</i>		1
White, <i>Smith, & Co.</i>	1	
Whitney, <i>James L., 6 broadsides, 2 newspapers</i>	2	114
Whitney, <i>Prof. Josiah D., Cambridge</i>	1	1
Whitney, <i>Prof. William D., New Haven, Conn.</i>		4

GIVERS.	Vols.	Pphs.
Whittier, Charles C. 1 broadside	1	
Whyte, Thomas M.	2	3
Whyte, <i>Hon.</i> William P., <i>Baltimore, Md.</i>	2	
Wigglesworth, <i>Mrs.</i> Edward, a lot of newspapers	20	
Wilder, Alexander, <i>M.D., Newark, N.J.</i>	1	
Wilder, <i>Hon.</i> Marshall P.		1
Winchester Public Library		1
Winsor, Justin, <i>Cambridge</i>		1
Winthrop, <i>Hon.</i> Robert C., 45 newspapers		37
Woman's Medical College of Pennsylvania, <i>Philadelphia, Pa.</i>		1
Woolrich & Co., <i>Palmer</i>		2
Worcester, Samuel, <i>M.D., Salem</i>		1
Worthington, Roland, & Co	2	
Wright, Elizur	1	
Wyoming Historical and Geological Society, <i>Wilkes-Barre, Pa.</i>		3
Yale College Library, <i>New Haven, Conn.</i>		2
Young Men's Library, <i>Buffalo, N. Y.</i>		5
Young Men's Library Association, <i>Ware</i>		1

APPENDIX XIV.

LOWER HALL AND BRANCH READING.

[Based upon the record of books returned.]

Class No.	CLASSES. The figures give the relative percentages.	1878							1879							1880								
		L. H.	E. B.	S. B.	Rox.	Dor.	S. E.	Total.	L. H.	E. B.	S. B.	Rox.	Dor.	S. E.	J. P.	Total.	L. H.	E. B.	S. B.	Rox.	Dor.	S. E.	J. P.	Total.
I.	Fiction and juveniles*	72	83	80	86	81	81	80	72	81	76	84	82	78	62	76.4	70	80	76	83	79	73	62	74.7
II.	History and biography	6	4	5	4	5	8	5	6	5	6	4	4	7	5	5.3	6	4	6	4	5	8	6	5.3
III.	Travels and voyages	3	2	3	2	3	3	3	3	2	4	2	3	4	3	3	3	2	3	3	3	5	3	3
IV.	Science, arts, fine and useful, theology, law, [medicine, professions	6	2	3	3	3	2	3	6	2	3	4	4	3	4	4	7	3	4	4	4	5	4	4.4
V.	Periodicals	6	4	4	2	3	2	3.5	6	5	5	3	3	3	2	4	7	6	6	3	5	5	4	5
VI.	Foreign languages	3	...	...	...	—	—	1	3	...	...	...	—	—	...	...	3	...	...	...	—	—	—	1
VII.	Miscellaneous	4	4	5	2	5	4	4.5	4	5	6	3	4	5	24	7.3	4	5	5	3	4	4	21	6.6

Class No.	CLASSES. The figures give the relative percentages.	1881									1882.									1883.								
		L. H.	E. B.	S. B.	Rox.	Chn.	Dor.	S. E.	J. P.	Total.	L. H.	E. B.	S. B.	Rox.	Chn.	Dor.	S. E.	J. P.	Total.	L. H.	E. B.	S. B.	Rox.	Chn.	Dor.	S. E.	J. P.	Total.
I.	Fiction and juveniles*	70	80	76	82	78	79	74	79	77	64.23	78	73	81	78.2	77.4	80.3	79	76.6	61.49	77.50	75	79	75.9	77.8	77.2	77	75.1
II.	History and biography	7	4	5	4	6	5	4	5	5	7.01	5	11	5	6	4.1	5.4	5	6.1	7.26	3.75	7	5	6.3	4.6	6.	5	5.6
III.	Travels and voyages	3	3	4	3	3	3	9	3	4	4.03	2	4	3	3	2.8	3.2	3	3.1	4.57	3.00	3	3	3.	3.5	4.	4	3.5
IV.	Science, arts, fine and useful, the- ology law, medicine, professions .	6	3	3	3	3	4	4	4	4	8.96	4	4	5	2.7	4.5	4.8	4	4.8	9.47	2.75	5	5	3.2	5.3	5.7	4	5.1
V.	Periodicals	5	6	7	4	4	5	5	4	5	4.93	7	3.5	4	4	5.2	3.1	5	4.6	5.11	7.38	7	5	4.6	3.8	2.9	6	5.
VI.	Foreign languages	3	—	—	—	—	—	—	1	.5	3.52	...	.5	1	.1	.1	...	...	.6	4.41	.12	—	.1	.2	—	.3	—	1.
VII.	Miscellaneous	6	4	5	4	6	4	4	4	4.5	7.32	4	4	1	6	3.9	3.2	4	4.2	7.69	5.50	3	2	6.8	5.	3.9	4	4.7

* A large number of the juveniles are not fiction.

Books taken out on white slips and returned the same day are not included.

The circulation of the entire library for the past year was 1,045,902 [App. X.] of which 610,139 vols., or 58.37 per cent., were fiction and juveniles.



APPENDIX XI.

REGISTRATION.

The first registration, 1854-58, had 17,066 names; the second, 1859-67, had 52,829 names.	I. Applications.					II. Applications sent to police for verification.					III. Cards refused (mostly because ap- plicants were non-res- idents or under age).					IV. Cards not called for during the year.					V. Applications can- celled after being 6 months on file, and a month's notice.					Totals of third regis- tration to May 1, 1883.
	1879	1880	1881	1882	1883	1879	1880	1881	1882	1883	1879	1880	1881	1882	1883	1879	1880	1881	1882	1883	1879	1880	1881	1882	1883	
Central library	6,383	5,806	5,607	5,901	5,653	3,301	3,486	3,558	3,649	3,627	163	176	133	120	128	322	201	232	770	239	241	201	232	227	311	113,547
East Boston branch . .	718	800	792	893	796	356	503	600	666	549	15	22	12	16	11	12	15	.	23	22	16	14	12	24	22	13,016
South Boston branch .	1,164	1,221	1,138	1,143	1,176	39	98	194	198	297	8	7	15	14	15	6	11	35	25	31	9	5	14	28	29	16,150
Roxbury branch . . .	1,144	1,016	922	1,005	1,136	44	.	57	52	51	14	202	7	5	7	38	22	37	41	51	38	22	37	41	51	16,201
Charlestown branch . .	800	812	955	924	855	.	.	.	.	.	1	3	.	8	.	42	25	36	27	9	42	25	25	17	26	16,154
Brighton branch . . .	191	234	194	215	251	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	13,480
Dorchester branch . .	410	448	382	531	602	25	34	32	12	9	.	2	2	1	.	18	24	18	12	14	15	.	5	9	7	5,551
South End branch . . .	1,053	954	881	1,065	1,055	656	671	6	.	.	103	36	.	2	.	70	49	16	.	.	46	40	14	.	.	6,595
Jamaica Plain branch .	783	572	473	486	418	.	.	.	.	.	7	2	5	.	.	7	5	6	5	6	17	25	15	11	2	3,325
North End branch . . .	.	.	.	.	431	.	.	.	.	431	.	.	.	.	.	.	.	.	.	26	.	.	.	.	20	431
Totals	12,646	11,863	11,344	12,163	12,373	4,421	4,860	4,447	4,577	4,964	511	450	174	166	161	515	337	380	903	398	424	332	354	357	468	204,450

APPENDIX XII.

BOOKS RECOMMENDED, USE OF PATENT-ROOM AND TOSTI ENGRAVINGS.

YEARS.	BOOKS RECOMMENDED.						USE OF PATENTS.		USE OF TOSTI ENGRAVINGS.			
	Total recom- mended.		Total.		Already in Library.		Received since.		Citizens.		Strangers.	
	Eng.	For.	Eng.	For.	Eng.	For.	Eng.	For.	Gent'n.	Ladies.	Gent'n.	Ladies.
1874	1,990	290	2,280	48	467	1,028	127	2,591	137	251	152	218
1875	1,968	326	2,294	61	419	945	96	2,707	64	93	74	162
1876	2,423	370	2,793	47	519	1,635	126	3,204	74	142	55	156
1877	2,055	384	2,387	87	501	1,282	109	4,222	47	99	65	140
1878	1,579	244	1,823	47	456	731	117	4,769	37	65	34	82
1879	2,180	374	2,554	59	487	1,236	92	4,728	24	49	45	115
1880	1,984	609	2,593	69	299	1,063	231	4,094	30	48	28	81
1881	1,521	485	2,006	55	279	1,088	200	5,255	14	12	27	94
1882	1,630	595	2,223	67	225	1,073	237	5,147	10	19	16	59
1883	1,592	841	2,433	95	161	1,203	296	4,732	13	28	16	57

* Of this number 1,060 were non-residents. The largest number of persons consulting patents in one day was 30, on the 5th of February, 1883.
NOTE. — The column of "Received since" denotes those received of the "Total recommended" the same year. What may be in subsequent years received of such "Total recommended" does not appear in this table. For instance, of the 1 625 — (339+753)=533 not received in 1873 of the total recommended that year, a large part has since been received.
Patents. — The American, French, German, and British patents are in the Patent room under charge of a Curator.
Engravings. — The statistics refer only to the bound volumes. The Curator shows them every day from 9 to 12.

APPENDIX XIII.

BATES-HALL READING.

CLASSIFICATION.	PERCENTAGE OF USE.									
	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883
English history, topography, biography, travel, and polite literature .	16	15	15	13	13	13	13.2	13.1	12.3	12.0
American (North and South) history, etc.	11	11	12	10	14	13	11.8	11.1	12.2	12.4
French history, etc.	6	5	5	5	4	4	6.1	5.8	5.3	4.6
German history, etc.	3	4	3	3	5	5	3.4	3.9	3.9	3.9
Italian history, etc.	2	2	2	2	2	2	1.5	1.8	1.6	1.6
Other history, topography, biography, travel, and polite literature .	3	4	4	3	5	5	4.2	4.6	5.1	4.7
General and epochal history	2	2	3	2	2	2	3.3	3.3	3.6	3.5
Greek, Latin, and philology	4	4	3	4	4	4	3.5	3.6	3.9	3.3
Bibliography	1	1	1	1	2	2	1.2	1.5	1.6	1.6
Transactions	1	2	1	5	2	2	.5	.6	.6	.7
Periodicals	8	7	7	6	5	5	3.9	3.5	3.4	3.7
Fine arts	11	11	10	9	12	13	8.9	8.7	8.5	8.4
Natural history and science	4	3	3	3	1	1	3.8	3.7	3.6	3.8
Theology, ecclesiastical history, ethics, education, etc.	11	11	10	10	8	8	11.0	11.5	11.3	15.0
Medicine	7	6	6	6	6	6	7.3	7.0	6.6	6.4
Law, government, and political economy	2	2	3	3	2	2	2.7	2.5	2.5	2.3
Useful arts, mathematics, physics, etc.	6	7	9	10	10	10	9.7	8.9	9.0	9.1
Miscellaneous pamphlets bound . .	2	3	3	5	3	3	4.0	4.9	5.0	4.8

NOTE. — In computing this percentage, the use of books in the Bowditch, Parker, Barton and Prince libraries — which are kept apart from the general classification of the Library — is reckoned as near as possible and included in the usual divisions, as is indicated in the table. (See *Explanations* to Appendix VII.)

The figures for 1879 are only approximately correct.

TRUST FUNDS. — Cash Accounts, May 1, 1882, to April 30, 1883.

	PEMBERTON FUND.		BOYLSTON EDUCATION FUND.		BOYLSTON RELIEF FUND.		MASON FUND.		DENTER FUND.		JEFFRIES FUND.		LUCY BULLMAN CHARITY.		THE DAVID SEARS CHARITY.		PIERCE FUEL FUND.		HOLTON PROTESTANT PAUPER FUND.		HOLTON PROTESTANT POOR FUND.		STOUGHTON POOR FUND.		TOTAL.		
	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	Receipts.	Payments.	
Cash, May 1, 1882	\$469 84		\$472 85		\$51 16		109 50		\$249 58		\$479 34		\$377 34		\$645 43		\$45 46		\$345 78		\$53 58		\$352 00		\$4,151 86		
RECEIPTS.																											
Bank Dividends, including Tax refunded by the State	3,378 47		1,120 41		514 56				61 34																5,074 78		
Interest on City Notes	2,911 11		5,940 23		660 16		60 00		161 50		157 50		617 61		10,262 78		90 00		100 00		75 00		00 00		21,135 80		
Interest on State Bonds	100 00		100 00																					200 00			
Interest on United States Bonds							292 00																	292 00			
Interest on Deposits	21 83		16 55		20 20		3 74		6 14		6 13		23 62		27 80		37		8 49		1 56		7 89		147 58		
Rents													1,111 99		979 25									2,091 24			
Dividends on Fifty Associates' Stock															1,900 00									1,900 00			
Received of the City Treasurer, Note of the Stoughton Poor Fund																						1,000 00		1,000 00			
Board of boy at Farm School refunded by mother			65 00																					65 00			
Part Note sold to Jeffries Fund													500 00											500 00			
PAYMENTS.																											
Investments		\$1,000 00		\$5,000 00		\$1,000 00					\$500 00		\$2,000 00		\$5,000 00								\$1,000 00		\$15,500 00		
Pensions		4,980 00				700 00									9,015 00										14,695 00		
Board of Boys at Farm School				2,318 16																					2,318 16		
Paid on account of Salary of the Chaplain of the House of Industry								\$255 74																	355 74		
Grants													430 00												430 00		
City Meter Rates													16 00												16 00		
Turkeys for Brighton Poor																					\$107 87				107 87		
Paid Treasurer of Charlestown Poor Fund																\$91 63									91 63		
Coal								\$69 43																	69 43		
Cash, April 30, 1883		901 25		96 88		346 14		109 50		379 13		145 97		184 56		99 74		45 00		454 27		22 27		419 89		3,104 86	
Total	\$6,881 25	\$6,881 25	\$7,415 04	\$7,415 04	\$2,046 14	\$2,046 14	\$465 24	\$465 24	\$418 56	\$418 56	\$646 97	\$646 97	\$2,630 56	\$2,630 56	\$14,015 00	\$14,015 00	\$136 03	\$136 03	\$454 27	\$454 27	\$130 14	\$130 14	\$1,419 89	\$1,419 89	\$36,658 09	\$36,658 09	

E. E. Boston, May 1, 1883.

FREDERIC W. LINCOLN, Treasurer.

APPENDIX XV.

FELLOWES ATHENÆUM READING.

Class No.	CLASSES. Relative percentages.	1875	1876	1877	1878	1879	1880	1881	1882	1883
I.	History, biography, and travels .	43	38	33	30	37	39	33	42	44
II.	Modern foreign languages . . .	12	9	11	10	11	10	13	11	6
III.	Periodicals	4	5	14	17	6	5	4	4	5
IV.	Miscellaneous literature	10	10	9	8	9	11	11	10	11
V.	Theology, sociology, ethics . . .	6	5	7	7	6	6	9	} 28	6
VI.	Medicine	1	1	1	2	2	2	2		2
VII.	Classics	4	4	4	4	4	4	4		4
VIII.	Fine arts, engineering	8	10	7	7	8	7	6		6
IX.	Law, politics, government . . .	2	3	3	3	3	3	2		2
X.	Mathematics, science	10	15	11	12	14	13	11		10
XI.	Fiction	..	..	..	..	..	..	5	5	4

BRIGHTON BRANCH READING.

Class No.	CLASSES. Relative percentages.	1876	1877	1878	1879	1880	1881	1882	1883
I.	Fiction	80	77	76	75	76	76	73	74
II.	Biography, travel, and history	7	8	7	8	8	7	8	9
III.	Other	13	15	17	17	16	17	19	17

APPENDIX XVI.
PERIODICAL READING-ROOMS.

PERIODICALS.	1883											Total.								
	1874	1875	1876	1877	1878	1879	1880	1881	1882	Cen'l.*	E. B.		S. B.	Rox.	Ch'n.	S. E.	Bri.	Dor.	J. Pl.	N. E.
BY LANGUAGES.																				
English	547	609	579	589	555	571	585	617	593	290	30	51	72	63	21	34	20	33	28	614
French	57	66	50	64	59	47	49	49	52	41	. . .	. . .	6	. . .	. . .	. . .	. . .	. . .	. . .	47
German	43	49	45	45	46	44	42	47	42	36	. . .	2	. . .	. . .	. . .	. . .	. . .	. . .	. . .	38
Italian	3	4	3	3	3	3	3	2	3	3	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	3
Others	. . .	. . .	1	2	2	2	2	2	2	1	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1
Totals	650	728	678	703	665	667	681	717	692	371	30	53	78	63	21	34	20	33	28	703
Duplicates	94	103	120	103	105	95	95	86	86	69	2	5	2	. . .	5	. . .	. . .	. . .	. . .	83
Grand Totals	744	831	798	806	770	762	776	803	778	440	32	58	80	63	26	34	20	33	28	786
STATISTICS OF USE.																				
Number of days open	. . .	. . .	358	360	. . .	. . .	. . .	. . .	. . .	358	306	306	306	306	306	. . .	. . .	. . .	176	. . .
Total readers	233,704	249,870	317,308	339,514	371,687	374,716	435,242	393,931	393,684	291,462	16,227	27,457	15,129	28,377	10,754	. . .	. . .	. . .	2,954	392,360
Daily average readers	706	698	830	957	1,080	1,118	1,417	228	. . .	814	53	90	50	92	35	. . .	. . .	. . .	17	. . .
Magazines read, total	329,524	348,772	400,452	424,664	471,984	490,324	481,901	520,672	492,090	381,810	27,661	39,366	26,910	26,486	12,302	. . .	. . .	. . .	3,691	518,226
Magazines read, daily average	964	973	1,118	1,201	1,375	1,344	1,569	303	†	1,067	90	129	88	86	40	. . .	. . .	. . .	20	†
Average issue per Sunday †	421	473	476	487	439	504	537	545	548	582	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .

* Transactions of learned societies and costly journals, kept in Bates Hall, are not included in this count, but they are all embraced — if currently received — in the Periodical list, issued by the Library.
† Central Library only. The circulation of periodicals in branch libraries has not been sufficient to warrant opening the reading-rooms on Sundays.

† No true general average can be given because the reading-rooms are open a different number of days during the year.
NOTE. — The use of newspapers at the Charlestown branch is not included, but the number of readers of them is. No statistics of the use at Brighton, Dorchester, and Jamaica Plain are practicable under the present arrangements.

APPENDIX XVII.

LOSSES, DELINQUENCIES, ETC., IN BOOKS LOANED.

Class No.	CLASSES.	1883.										
		B. H.	L. H.	E. B.	S. B.	Rox.	Ch'n.	Bri.	Dor.	S. E.	J. P.	Total.
I.	Books finable	7,983	17,316	3,862	5,125	5,843	3,386	1,717	3,337	3,679	3,575	55,823
II.	Mail notices	2,053	5,338	968	1,448	1,228	1,003	427	645	371	447	13,928
III.	Books sent for by messenger	205	569	57	68	91	27	7	28	28	14	1,094
IV.	Books condemned	20	1,423	379	304	783	561	96	189	286	190	4,231
V.	Books covered . . . . .	.....	69,628	50,919	52,414	48,933	17,329	9,917	18,959	6,425	8,030	282,554
VI.	Books sent to binderies	4,734	3,466	464	578	960	881	260	274	553	568	12,739
VII.	Books loaned finally given up as lost .	18	53	0	1	4	2	1	1	0	0	80

1876-77. — Of 1,140,572 volumes delivered to borrowers, only one in 8,842 was lost.
1877-78. — Of 1,183,991 “ “ 11,723 “
1878-79. — Of 1,180,565 “ “ 11,688 “
1879-80. — Of 1,156,721 “ “ 11,122 “
1880-81. — Of 1,065,181 “ “ 12,104 “
1881-82. — Of 1,040,553 “ “ 16,008 “
1882-83. — Of 1,045,902 “ “ 13,074 “

APPENDIX XVIII.

FINANCIAL STATEMENT.

GENERAL LIBRARY ACCOUNTS.	1882-83.			Paid into City treasury from fines and sales of catalogues.	
	City appro- priations.	Expended.	Fellowes Athenæum.	Year.	Amount.
Binding	\$3,000	\$1,436 10		1873	\$1,681 79
Books	} 17,000	24,953 49	\$1,147 47	1874	2,000 00
Periodicals*		3,536 99			
Catalogues (printing) . .	4,000	4,554 84		1875	2,360 24
Expense	3,000	3,488 10		1876	2,505 35
Fuel	3,000	3,126 45		1877	3,092 12
Furniture (cabinets, shelving, fixtures, etc.)	2,000	1,178 55		1878	3,266 31
Gas	5,000	5,473 96		1879	2,618 32
Printing (miscellaneous)	} 4,000	3,725 51		1880	2,984 12
Stationery					
Salaries	73,000	71,623 41		1881	3,497 03
Transportation, Postage, etc.	2,000	1,880 14		1882	2,945 74
				1883	3,223 14
Total	\$116,000	\$124,977 54	\$1,147 47		

* The appropriation for periodicals is included in that for books.

NOTE. — The expenditures for books cover the cost of those chargeable to the trust funds account, as well as those charged to the annual appropriations from the city, and also include such as are bought with the balances with the foreign agents at the close of the previous year. The financial and library years now nominally correspond, but it will happen that bills accruing subsequently to the middle of March (when the last requisition of the year, payable April 1st, is approved) will be audited in the subsequent year's account beginning nominally May 1st. In this way books added between March 15th and May 1st may be counted in one year's growth, and paid for in the subsequent year's account. The cost of maintaining branches after the first year makes part of the general items of the several appropriations.

The money for books bought on account of the Fellowes Athenæum is spent under the direction of the book committee of the trustees of the Fellowes fund.

Details for previous years can be found in Appendix XIX. to the report for 1881.

NORTH END BRANCH.

City Appropriation, \$4,000.

Salaries	\$672 48
Books	705 71
Expense	1,027 86
Amount actually expended	\$2,406 05

APPENDIX XIX.

LIBRARY FUNDS.—INVESTED IN CITY OF BOSTON BONDS.

	GIVER.	Amount.	When Delivered.	No. of Bond.	When due.	Income.	Provisions.
1	Joshua Bates	\$50,000 00	March, 1853	1,727	April, 1894	\$3,000	To buy "books of permanent value."
2	Jonathan Phillips	{ 20,000 90 10,000 00	{ April, 1861 April, 1853	{ 352 1,725	{ Jan'y, 1906 April, 1894	{ 1,800	{ "To the maintenance of a free public library." "Purchase of books."
3	Abbott Lawrence	10,000 00	May, 1860	281	July, 1905	600	Books having a permanent value.
4	Charlotte Harris	10,000 00	August, 1877	2,579	Oct., 1897	600	Books for Charlestown branch, published before 1850.
5	Henry L. Pierce	5,000 00	December, 1873	1,567	Jan'y, 1894	300	"Books of permanent value for the Bates Hall."
6	Mary P. Townsend	4,000 00	April, 1879	2,960	April, 1899	200	Books five years old in some one edition.
7	George Ticknor	4,000 00	April, 1871	10,480	April, 1891	240	Books in Spanish and Portuguese, five years old in some one edition.
8	John P. Bigelow	1,000 00	August, 1850	1,726	April, 1894	60	Purchase of books.
9	Franklin Club	1,000 00	June, 1863	5,531	Jan'y, 1884	60	Books of permanent value, preferably "books on government and political economy."
10	Samuel A. Green	1,500 00	November, 1878	722	April, 1908	75	Books relating to American history.
11	South Boston	100 00	September, 1879	3,119	July, 1889	5	
		\$116,600 00				\$6,940	

MEMORANDA.

- (1) Joshua Bates, born near Boston, 1788; died in London, as the head of the house of Baring Brothers & Co., 1864. In addition to this fund, he gave \$50,000 worth of books to the Library.
- (2) The sum of \$5,000 was a gift in Mr. Phillips' lifetime. The other \$20,000 was bequeathed by his will, dated 28th of Sept., 1849. He died 29th July, 1860, aged 82.
- (3) Mr. Lawrence died in August, 1855, and this sum was a bequest.
- (4) The bequest of Charlotte Harris to the Charlestown branch. With it her private library was also given.
- (5) The donation of Mayor Pierce, previous to his retirement from office. The principal or interest may be expended as is deemed best.
- (6) This fund was received from William Minot and William Minot, Jr., executors of Miss Townsend's will, to whom discretionary power in making the gift was given by the will.
- (7) This bequest accompanied the testamentary gift of his Spanish and Portuguese library. It is required that \$1,000, at least, shall be spent every five years for twenty-five years, for the addition to books in said library.
- (8) This fund was a sum intended for a testimonial to Mr. Bigelow on retiring from the mayoralty, and was transferred by him to this purpose.
- (9) Given by the Trustees of the Franklin club, under authority given them at the dissolution of that literary association.

APPENDIX XX.

LIBRARY SERVICE.

(April 30, 1883.)

Department.	Name.	Entered service.	Position, duties, etc.	On regular service.	On time and extra service.	Total employed.
Executive Department.	MELLEN CHAMBERLAIN . . .	1878.	Librarian and Clerk of the Corporation	1	..	..
	James L. Whitney	1869.	Principal Assistant Librarian	..	..	..
	José F. Carret	1875.	Register, and Curator of patents and engravings	1	..	..
	Louis F. Gray	1880.	Librarian's Secretary	1	..	..
	Adelaide A. Nichols	1868.	Auditor and Cashier	1	..	..
	Frank A. Thain	1883.	Librarian's Runner	1	..	..
	Total	..	..	5	..	5
Catalogue Department.	JAMES L. WHITNEY	1869.	Principal of the department	1	..	..
	William H. Foster	1860.	Cataloguer for Branch libraries and Proof Reader	1	..	..
	José F. Carret	1875.	Register, Curator of patents and engravings and Assistant	..	..	..
	Lindsay Swift	1878.	Assistant	1	..	..
	Elizabeth T. Reed	1873.	Assistant	1	..	..
	Roxanna M. Eastman	1859.	Extra Assistant and Cataloguer of U.S. documents	..	1	..
	Frank C. Blaisdell	1876.	Assistant	1	..	..
	Annie C. Miller	1881.	Assistant	1	..	..
	Annie E. Hutchins	1882.	Assistant	1	..	..
	Edward B. Hunt	1883.	Assistant	1	..	..
	Alice M. Porée	1866.	Assistant in Patent room, etc.	1	..	..
	Card Catalogues					
	HARRIET C. BLAKE	1880.	Curator	1	..	..
	Carrie K. Burnell	1881.	Curator of official card catalogue	1	..	..
	Mary F. Osgood	1877.	Assistant	1	..	..
	Alice Browne	1883.	Assistant	1	..	..
	William Walsh	1882.	Runner	1	..	..
	Total	..	..	14	1	15

LIBRARY SERVICE. — *Continued.*

Department.	Name.	Entered service.	Position, duties, etc.	On regular service.	On time and extra service.	Total employed.
<i>Purchase and Entry Department.</i>	HARRIET N. PIKE	1867.	Chief Clerk	1	..	..
	Edith D. Fuller	1879.	Associate Clerk	1	..	..
	Agnes R. Dame	1883.	Assistant Clerk	1	..	..
	Mary A. McGrath	1868.	Assistant	1	..	..
	Wm. H. Federhen	1882.	Runner	1	..	..
	Total	..	..	5	..	5
<i>Shelf Department.</i>	APPLETON P. C. GRIFFIN .	1865.	Custodian	1	..	..
	William F. Canny	1880.	Assistant	1	..	..
	William Roffe	1881.	Asst. in charge of repairs, etc.	1	..	..
	John S. Morrison	1882.	Runner	1	..	..
	Total	..	..	4	..	4
<i>Bates Hall.</i>	ARTHUR MASON KNAPP . .	1875.	Librarian of Bates Hall	1	..	..
	Lydia F. Knowles	1867.	Delivery Clerk	1	..	..
	Thomas M. Whyte	1874.	Receiving Clerk	1	..	..
	Margaret Doyle	1875.	Assistant	1	..	..
	Elizabeth J. Collins	1865.	Assistant	1	..	..
	W. Maynard L. Young . . .	1878.	Clerk of the branches	1	..	..
	Daniel Donovan	1880.	Runner	1	..	..
	William Margison	1882.	Runner	1	..	..
	Benjamin White	1883.	Runner	1	..	..
	John F. Murphy	1883.	Runner	1	..	..
	Total	..	..	10	..	10
<i>Lower Hall.</i>	EDWARD TIFFANY	1878.	Librarian of Lower Hall	1	..	..
	Mary A. Jenkins	1877.	Assistant Librarian	1	..	..
	William F. Robinson	1872.	Clerk for registration and fines	1	..	..
	Thomas H. Cummings	1879.	Curator of Lowell Hall card catalogue	1	..	..
	Caroline E. J. Porée	1859.	Reading-room Clerk	1	..	..
	Sarah A. Mack	1863.	Delivery desk	1	..	..
	Eliza J. Mack	1863.	Receiving desk	1	..	..
	Annie M. Kennedy	1869.	Registration and Assistant . .	1	..	..
	Ella R. Dillon	1876.	Delivery desk and Assistant . .	1	..	..
	Louisa Twickler	1881.	Assistant in reading-room . .	1	..	..
	Annie G. Shea	1874.	Record of slips and Substitute .	1	..	..
	Florence Richards	1878.	Return slips and Assistant . .	1	..	..

LIBRARY SERVICE. — *Continued.*

Department.	Name.	Entered service.	Position, duties, etc.	On regular service.	On time and extra service.	Total employed.
<i>Lower Hall.</i>	Mary Sheridan	1880.	Runner	1	..	..
	Rebecca J. Briggs	1881.	Runner	1	..	..
	Julia Twickler	1882.	Runner	1	..	..
	John J. Butler	1878.	Care of shelves	1	..	..
	<i>Evening Service.</i>					
	Frank C. Blaisdell	1883.	Registration Clerk and Sunday service	..	1	..
	Robert B. Ross	1873.	Reading-room	..	1	..
	Louis F. Gray	1881.	Card catalogue	..	1	..
	Catherine McGrath	1873.	Receiving desk	..	1	..
	Harry Young	1880.	Runner	..	1	..
	William L. Day	1881.	Runner	..	1	..
	T. J. McCormick	1882.	Runner	..	1	..
	Horace Burnham	1882.	Runner	..	1	..
	J. H. Reardon	1882.	Runner	..	1	..
	Total	..	..	16	9	25
	WILLIAM E. FORD	1858.	Janitor	1	..	..
	William F. Adams	1879.	Night Watchman	1	..	..
	John White	1880.	Porter	1	..	..
	William Monahan	1883.	Porter	1	..	..
	<i>Extra daily Assistants.</i>					
	Total	..	..	4	..	4
<i>Bindery.</i>	ANDREW M. BLAKE	1870.	Foreman	1	..	..
	Frank Ryder	1883.	Extra forwarder	1	..	..
	P. B. Sanford	1879.	Finisher	1	..	..
	Wm. Hemstead	1883.	Pressman	1	..	..
	William F. Sampson	1880.	Forwarder	1	..	..
	Arthur Siguere	1881.	Forwarder	1	..	..
	Mary E. Austen	1874.	Forewoman	1	..	..
	Martha M. Wheeler	1869.	Sewer	1	..	..
	Mary G. Moriarty	1875.	Sewer	1	..	..
	Sarah E. Bowen	1876.	Sewer	1	..	..
	Sarah Dumas	1881.	Sewer	1	..	..
	Mary J. Morton	1881.	Sewer	1	..	..
	Samuel Macconnell	1877.	Apprentice	1	..	..
	Total	..	..	13	..	13

LIBRARY SERVICE. — *Continued.*

Department.	Name.	Entered service.	Position, duties, etc.	On regular service.	On time and extra service.	Total employed.
<i>East Boston Branch.</i>	SARAH C. GODBOLD	1871.	Librarian	1	..	..
	Mary R. Pray	1870.	Assistant	1	..	..
	Alice M. Wing	1872.	Assistant	1	..	..
	Mary E. Cathcart	1870.	Assistant	1	..	..
	E. L. Lennon	1881.	Extra Assistant	..	1	..
	Adelia H. Ghen	1876.	Extra Runner	..	1	..
	Eva D. Merrill	1879.	Extra Runner	..	1	..
	Anna B. Rollins	1882.	Extra Runner	..	1	..
	Ada J. McConnell	1881.	Extra Runner	..	1	..
	George H. Hosea	1873.	Janitor	1	..	..
	Total	..	..	5	5	10
<i>South Boston Branch.</i>	N. JOSEPHINE BULLARD	1883.	Librarian	1	..	..
	Ellen A. Eaton	1872.	Registration Clerk	1	..	..
	Emogene C. Davis	1873.	Delivery Clerk	1	..	..
	Idalene L. Sampson	1877.	Receiving Clerk	1	..	..
	Mary Watson	1873.	Assistant	1	..	..
	Reata Watson	1873.	Extra Assistant	..	1	..
	Mabel Pond	1879.	Extra Assistant	..	1	..
	Lilla F. Davis	1881.	Extra Assistant	..	1	..
	Emmie W. Bragdon	1882.	Extra Assistant	..	1	..
	Amy Acton	1881.	Extra Runner	..	1	..
	Emma Le Fèvre	1881.	Extra Runner	..	1	..
	Etta Le Fèvre	1882.	Extra Runner	..	1	..
	Joseph Baker	1872.	Janitor	1	..	..
	Total	..	..	6	7	13
<i>Roxbury Branch.</i>	SARAH BUNKER	1876.	Librarian	1	..	..
	Mary Bradley	1876.	Assistant	1	..	..
	Elizabeth C. Berry	1877.	Assistant	1	..	..
	Helen M. Bell	1878.	Assistant	1	..	..
	Dora Puffer	1878.	Reading-room and registration Clerk	1	..	..
	Helen R. Crowell	1882.	Extra Assistant	..	1	..

LIBRARY SERVICE. — *Continued.*

Department.	Name.	Entered service.	Position, duties, etc.	On regular service.	On time and extra service.	Total employed.
<i>Roxbury Branch.</i>	Etta R. Clark	1882.	Extra Assistant	..	1	..
	Bertha M. Nelson	1882.	Extra Assistant	..	1	..
	Katie F. Albert	1883.	Runner	..	1	..
	Charles R. Curtis	1873.	Janitor	1	..	..
	Total	..	..	6	4	10
<i>Charlestown Branch.</i>	CORNELIUS S. CARTÉE . . .	1870.	Librarian	1	..	..
	Annie E. Eberle	1874.	Assistant	1	..	..
	Mary P. Swain	1878.	Assistant	1	..	..
	Alice G. Willoughby . . .	1882.	Runner	1	..	..
	Sarah E. McConnell	1879.	Extra Assistant	..	1	..
	Susan E. Livermore	1879.	Extra Assistant	..	1	..
	Emma L. Willoughby . . .	1882.	Extra Runner	..	1	..
	Thomas E. Smith	1874.	Janitor	1	..	..
	Total	..	..	5	3	8
<i>Brighton Branch.</i>	MARY E. BROCK	1875.	Librarian	1	..	..
	Mary F. Grailey	1880.	Assistant	1	..	..
	Sara R. Brock	1880.	Extra Assistant	..	1	..
	James M. Brock	1878.	Janitor	1	..	..
	Total	..	..	3	1	4
<i>Dorchester Branch.</i>	MARY G. COFFIN	1874.	Librarian	1	..	..
	Mary J. Sheridan	1875.	Assistant	1	..	..
	Frances Willard Pike . . .	1881.	Assistant	1	..	..
	Lucy Adelaide Watson . . .	1881.	Extra Assistant	..	1	..
	Susie G. Cook	1882.	Extra Assistant	..	1	..
	Edward Davenport	1874.	Janitor	1	..	..
	Total	..	..	4	2	6
<i>South End Branch.</i>	GRACE A. DE BORGES . . .	1880.	Librarian	1	..	..
	Maude M. Morse	1877.	Assistant	1	..	..
	Margaret A. Sheridan . . .	1875.	Assistant	1	..	..
	Mary Arkinson	1881.	Assistant	1	..	..
	Harold Percival	1883.	Runner	1	..	..
	William Brydon	1882.	Extra Runner	..	1	..
	Total	..	..	5	1	6

LIBRARY SERVICE: — *Concluded.*

Department.	Name.	Entered service.	Position, duties, etc.	On regular service.	On time and extra service.	Total employed.
<i>Jamaica Plain Branch.</i>	ELIZA R. DAVIS	1877.	Librarian	1	..	..
	Anna J. Barton	1876.	Assistant	1	..	..
	Nellie F. Riley	1878.	Extra Assistant	..	1	..
	Margaret S. Barton	1882.	Extra Assistant	..	1	..
	John Erickson	1882.	Extra Runner	..	1	..
	Timothy Johnson	1877.	Janitor	1	..	..
	Total	..	..	3	3	6
<i>North End Branch.</i>	ELIZA R. DAVIS	1882.	Librarian	1	..	..
	Mary E. Mooney	1882.	Assistant	1	..	..
	J. P. Fleming	1882.	Janitor	1	..	..
	Total	..	..	3	..	..
<i>Deliveries.</i>	Mary A. Hill	1875.	Custodian, Lower Mills	1	..	..
	Robert M. Otis	1881.	Custodian, Roslindale	1	..	..
	Anna Hibbard	1882.	Custodian, West Roxbury	1	..	..
	Harriet L. Atkinson	1882.	Custodian, Mattapan	1	..	..
	Etta M. Ruggles	1883.	Custodian, Neponset	1	..	..
	Total	..	..	5	..	5

SUMMARY.

Librarian, Register, Secretary, Auditor, and						
Runner	5					
Catalogue Department	14	1		} <i>Central Library.</i> 71 regulars. 10 extras. — 81 in all.		
Purchase and Entry department	5					
Shelf department	4					
Bates Hall circulation department	10					
Lower Hall circulation department, day, evening, and Sunday service	16	9		} <i>Branches.</i> 45 regulars. 26 extras. — 71		
Janitor's department	4					
Bindery	13					
East Boston branch	5	5				
South Boston branch	6	7				
Roxbury branch	6	4				
Charlestown branch	5	3				
Brighton branch	3	1				
Dorchester branch	4	2				
South-End branch	5	1				
Jamaica Plain branch	3	3				
North-End branch	3					
Deliveries	5					
Totals	116	36				
	36					
Grand total	152					

AGENTS.

Messrs. W. B. Clarke & Carruth, *Boston.*
 Mr. Edward G. Allen (for English patents), *London.*
 Messrs. N. Trübner & Co., *London.*
 Mr. F. W. Christern, and M. Charles Reinwald, *New York and Paris.*
 Deuerlich'sche Buchhandlung, *Göttingen.*
 Signorina Giulia Albèri, *Florence.*
 Señor Don Juan F. Riaño, *Madrid.*

APPENDIX XXI.

EXAMINATION OF THE LIBRARY.

	Bates Hall.	Lower Hall.	East Boston branch.	South Boston branch.	Roxbury branch.	Charlestown branch.	Brighton branch.	Dorchester branch.	South End branch.	Jamaica Plain branch.	Totals.
Not on shelves . .	3,890	6,863	2,123	3,766	3,192	2,452	887	1,793	2,853	1,283	29,102
<i>Of these found to be</i> Lent	2,577	4,490	1,792	3,571	2,728	1,930	691	1,596	2,450	1,150	22,975
At the binderies .	546	201	75	88	159	236	42	57	202	58	1,664
Otherwise accounted for . . .	735	2,020	253	107	297	286	154	137	199	72	4,260
Not accounted for	32	152	3	. . .	8	. . .	. .	3	2	3	203

APPENDIX XXII.

WORK IN THE LIBRARY BINDERY.

CHARACTER OF WORK.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.
Bates Hall books bound and finished	2,635	2,613	3,223	4,759	4,155	4,272	3,958	5,839	4,598	4,268
Books of the Lower Hall and branches	753	1,508	7,766	8,743	11,129	10,084	7,606	2,752	8,417	8,123
Books repaired	492	444	959	873	949	1,371	1,397	1,201	1,376	879
Catalogues wired and covered for public use in Lower Hall and branches	287	143								
Maps dissected and mounted	9									
Map volumes and shelf-lists mounted	109	493	820	2,712	958	3,014	2,145	3,205	4,387	4,904
Pamphlet cases	24									
Portfolios	8									
Removable covers for catalogues and for paper-covered books	450	1,520	1,287	1,271	1,469	1,970	1,946	1,032	664	1,112
Maps mounted, bound and bordered	8									
Hours of miscellaneous work	1,437	2,486	2,133	2,586	2,778	2,615	2,205	1,959	1,637	2,303

APPENDIX XXIII.

EXAMINING COMMITTEES FOR THIRTY-ONE YEARS.

The following gentlemen have served on the Examining Committees for the years given. The names in *italics* are those of Trustees, who have acted as chairmen of the various committees.

- | | |
|--|---|
| Abbott, Hon. J. G., 1870. | Durant, Henry F., 1863. |
| <i>Abbott, S. A. B.</i> , 1880. | Duryea, Jos. T., <i>D.D.</i> , 1880. |
| Adams, Nehemiah, <i>D.D.</i> , 1860. | Dwight, John S., 1868. |
| Adams, Wm. T., 1875. | Dwight, Thomas, <i>M.D.</i> , 1880. |
| Alger, <i>Rev.</i> Wm. R., 1870. | Eastburn, Manton, <i>D.D.</i> , 1863. |
| Appleton, <i>Hon.</i> Nathan, 1854. | Eliot, Samuel, <i>LL.D.</i> , 1868. |
| Apthorp, Wm. F., 1883. | Ellis, Calvin, <i>M.D.</i> , 1871. |
| Arnold Howard P., 1881. | Ellis, Geo. E., <i>D.D.</i> , 1881. |
| Aspinwall, <i>Col.</i> Thomas, 1860. | Endicott, Wm., jr., 1878. |
| Attwood, G., 1877. | Field, Walbridge A., 1866. |
| Bailey, Edwin C., 1861. | Fields, James T., 1872. |
| Ball, Joshua D., 1861. | Foote, <i>Rev.</i> Henry W., 1864. |
| Barnard, James M., 1866. | Fowle, William F., 1864. |
| Bartlett, Sidney, 1869. | Freeland, Charles W., 1867. |
| Beebe, James M., 1858. | Frost, Oliver, 1854. |
| Beecher, <i>Rev.</i> Edward, 1854. | <i>Frothingham, Richard</i> , 1876. |
| Bigelow, Jacob, <i>M.D.</i> , 1857. | Fitz, Reginald H., 1879. |
| <i>Bigelow, Hon. John P.</i> , 1856. | Furness, Horace Howard, <i>LL.D.</i> ,
1882. |
| Blagden, George W., <i>D.D.</i> , 1856. | Gannett, Ezra S., <i>D.D.</i> , 1855. |
| Blake, John G., <i>M.D.</i> , 1883. | Gay, George H., 1876. |
| Bodfish, <i>Rev.</i> Joshua P., 1879. | Gilchrist, Daniel S., 1872. |
| Bowditch, Henry I., <i>M.D.</i> , 1855. | Gould, A. A., <i>M.D.</i> , 1864. |
| <i>Bowditch, Henry I.</i> , <i>M.D.</i> , 1865. | Gray, John C., jr., 1877. |
| Bowditch, H. P., <i>M.D.</i> , 1881. | <i>Green, Samuel A.</i> , <i>M.D.</i> , 1868. |
| Bowditch, J. Ingersoll, 1855. | <i>Greenough, William W.</i> , 1858, 1874,
1883. |
| Bowman, Alfonzo, 1867. | Grinnell, <i>Rev.</i> , C. E., 1874. |
| Bradford, Charles F., 1868. | Hale, <i>Rev.</i> Edward E., 1858. |
| Brewer, Thomas M., 1865. | Hale, Moses L., 1862. |
| Brooks, <i>Rev.</i> Phillips, 1871. | Haskins, <i>Rev.</i> George F., 1865. |
| Browne, Causten, 1876. | Hayes, Hon. F. B., 1874. |
| Buckingham, C. E., <i>M.D.</i> , 1872. | Haynes, Henry W., 1879. |
| Burroughs, <i>Rev.</i> Henry, jr., 1869. | <i>Haynes, Henry W.</i> , 1881. |
| Chadwick, James R., <i>M.D.</i> , 1877. | Hayward, George, <i>M.D.</i> , 1863. |
| Chaney, <i>Rev.</i> George L., 1868. | Heard, John T., 1853. |
| Chase, George B., 1876. | Higginson, Thomas W., 1883. |
| Cheney, <i>Mrs.</i> Ednah D., 1881. | Hill, Clement Hugh, 1880. |
| <i>Clapp, William W.</i> , jr., 1864. | Hillard, <i>Hon.</i> George S., 1853. |
| Clarke, James Freeman, <i>D.D.</i> , 1877. | Hodges, Richard M., <i>M.D.</i> , 1870. |
| <i>Clarke, James Freeman</i> , <i>D.D.</i> , 1882. | Holmes, Edward J., 1881. |
| Collar, Wm. C., 1874. | Holmes, Oliver W., <i>M.D.</i> , 1858. |
| Cudworth, Warren H., <i>D.D.</i> , 1878. | Holmes, Oliver W., jr., 1882. |
| Curtis, Charles P., 1862. | Homans, Charles D., <i>M.D.</i> , 1867. |
| Curtis, Daniel S., 1872. | Homer, George, 1870. |
| Curtis, Thos. B., <i>M.D.</i> , 1874. | Homer, Peter T., 1857. |
| Dana, Samuel T., 1857. | Hubbard, William J., 1858. |
| Dean, Benj., 1873. | Hunnewell, James F., 1880. |
| Denny, Henry G., 1876. | Hyde, George B., 1879. |
| Dexter, <i>Rev.</i> Henry M., 1866. | Jeffries, B. Joy, <i>M.D.</i> , 1869. |
| Dix, James A., 1860. | |
| Donahoe, Patrick, 1869. | |

- Jenkins, Charles E., 1879.
 Jewell, *Hon.* Harvey, 1863.
 Jordan, Eben D., 1873.
 Kidder, Henry P., 1870.
 Kimball, Henry H., 1865.
 Kirk, Edward N., *D.D.*, 1859.
 Lawrence, *Hon.* Abbott, 1853.
 Lawrence, Abbott, 1859.
 Lawrence, James, 1855.
 Lewis, Weston, 1882.
 Lincoln, *Hon.* F. W., 1856.
 Little, James L., 1864.
 Lombard, *Prof.* Josiah L., 1868.
 Loring, *Hon.* Charles G., 1855.
 Lothrop, Loring, 1866.
 Lowell, Augustus, 1883.
 Lunt, *Hon.* George, 1874.
 Manning, *Rev.* Jacob M., 1861.
 Mason, *Rev.* Charles, 1857.
 Mason, Robert M., 1869.
 Maxwell, J. Audley, 1883.
 Minns, Thomas, 1864.
 Minot, Francis, 1866.
 Morse, John T., jr., 1879.
 Morse, Robert M., jr., 1878.
 Morton, *Hon.* Ellis W., 1871.
 Mudge, *Hon.* E. R., 1871.
 Neale, Rollin H., *D.D.*, 1853.
 Noble, John, 1882.
 Norcross, Otis, 1880.
 O'Reilly, John Boyle, 1878.
 Otis, G. A., 1860.
 Paddock, *Rt. Rev.* Benj. H., 1876.
 Parks, *Rev.* Leighton, 1882.
 Perkins, Charles C., 1871.
 Perry, Thomas S., 1879, 1882, 1883.
 Phillips, John C., 1882.
 Phillips, Jonathan, 1854.
 Prescott, William H., *LL.D.*, 1853.
 Putnam, George, *D.D.*, 1870.
 Putnam, *Hon.* John P., 1865.
 Rice, *Hon.* Alexander H., 1860.
 Rogers, *Prof.* William B., 1861.
 Ropes, John C., 1872.
 Rotch, Benjamin S., 1863.
 Runkle, *Prof.* J. D., 1882.
 Russell, Samuel H., 1880.
 Sanger, *Hon.* George P., 1860.
 Seaver, Edwin P., 1881.
 Shurtleff, *Hon.* Nathaniel B., 1857.
 Smith, Charles C., 1873.
 Smith, *Mrs.* Charles C., 1881.
 Sprague, Charles J., 1859.
 Sprague, Homer B., 1882.
 Stevens, Oliver, 1858.
 Stevenson, *Hon.* J. Thomas, 1856.
 Stockwell, S. N., 1861.
 Story, Joseph, 1856.
 Sullivan, Richard, 1883.
 Thaxter, Adam W., 1855.
 Thayer, George A., 1875.
 Thayer, *Rev.* Thomas B., 1862.
 Thomas, B. F., 1875.
 Thomas, Seth J., 1856.
 Ticknor, George, 1853, 1854, 1855, 1859, 1863, 1866.
 Tobey, *Hon.* Edward S., 1862.
 Twombly, *Rev.* A. S., 1883.
 Upham, J. B., *M.D.*, 1865.
 Vibbert, *Rev.* Geo. H., 1873.
 Walley, *Hon.* Samuel H., 1862.
 Ward, *Rev.* Julius H., 1882.
 Ware, Charles E., *M.D.*, 1875.
 Ware, Darwin S., 1881.
 Wales, George W., 1875.
 Warner, Herman J., 1867.
 Warren, *Hon.* Charles H., 1859.
 Warren, J. Collins, *M.D.*, 1878.
 Waterston, *Rev.* Robert C., 1867.
 Wells, *Mrs.* Kate G., 1877.
 Whipple, Edwin P., 1869.
 Whitney, Daniel H., 1862.
 Whitney, Henry A., 1873.
 Wightman, *Hon.* Joseph M., 1859.
 Williamson, William C., 1881.
 Wilson, Elisha T., *M.D.*, 1861.
 Winsor, Justin, 1867.
 Winthrop, *Hon.* Robert C., 1854,
 Woodbury, Charles Levi, 1871.

CITY OF



BOSTON.

NINETEENTH REPORT

OF THE

TRUSTEES OF THE CITY HOSPITAL,

WITH

REPORTS OF THE SUPERINTENDENT AND PROFESSIONAL
STAFF, RULES FOR ADMISSIONS AND
DISCHARGES, ETC.

BOARD OF TRUSTEES FOR 1882-83.

Alderman — Cyrus S. Haldeman.

Councilman — John P. Hilton.

At Large — Geo. W. Pope, President, for three years.

Henry H. Sprague, Secretary, for two years.

Jos. A. Tucker, for five years.

M. F. Gavin, M.D., for four years.

Timothy J. Dacey, for one year.

THE HOSPITAL STAFF.

Board of Consulting Physicians and Surgeons.

Benj. E. Cotting, M.D.	Fitch E. Oliver, M.D.
J. Baxter Upham, M.D.	Benj. Cushing, M.D.
A. D. Sinclair, M.D.	

Resident Physician and Superintendent.

Geo. H. M. Rowe, M.D.

Visiting Physicians.

John G. Blake, M.D.	O. W. Doe, M.D.
Geo. H. Lyman, M.D.	A. L. Mason, M.D.
C. Ellery Stedman, M.D.	A. M. Sumner, M.D.
Frank W. Draper, M.D.	G. B. Shattuck, M.D.

For Diseases of the Nervous System.

R. T. Edes, M.D.	S. G. Webber, M.D.
Jas. H. Denny, M.D.	

Visiting Surgeons.

Chas. D. Homans, M.D.	W. C. B. Fifield, M.D.
David W. Cheever, M.D.	William Ingalls, M.D.
Wm. H. Thorndike, M.D.	George W. Gay, M.D.

Ophthalmic Surgeons.

Henry W. Williams, M.D.	Oliver F. Wadsworth, M.D.
-------------------------	---------------------------

Physicians to Out-Patients.

Edward J. Forster, M.D.	Thomas M. Rotch, M.D.
-------------------------	-----------------------

Surgeons to Out-Patients.

W. P. Bolles, M.D.	E. H. Bradford, M.D.
Abner Post, M.D.	

Out-Patient Department for Diseases of Women.

W. E. Boardman, M.D.	Geo. H. Bixby, M.D.
----------------------	---------------------

Out-Patient Department for Diseases of the Skin.

Edward Wigglesworth, M.D.

Assistant.

Geo. H. Tilden, M.D.

Out-Patient Department for Diseases of the Ear.

J. Orne Green, M.D.

Assistant.

Francis H. Brown, M.D.

Out-Patient Department for Diseases of the Nervous System.

Chas. F. Folsom, M.D.

Out-Patient Department for Diseases of the Throat.

E. W. Cushing, M.D.

Assistant.

Morton Prince, M.D.

Pathologist.

W. W. Gannett, M.D.

Assistant.

H. C. Ernst, M.D.

HOUSE STAFF.

House Physicians.

H. S. Johnson,

C. D. Sawin,

E. P. Elliot.

House Surgeons.

John Trumbull,

H. A. Wood.

Medical Internes.

Samuel Delano,

Wallace Preble.

Surgical Internes.

Jos. B. Murphy,

David E. Baker.

Medical Externes.

John B. Brainard,

Clement W. Sparhawk.

Surgical Externes.

Stephen A. Welch,

Geo. E. Thompson.

Ophthalmic Interne.

Philip C. Knapp, Jr.

Ophthalmic Externe.

Robert Bell.

HOSPITAL OFFICERS.

Samuel M. Nesmith, *Steward.*Miss Linda Richards, *Supt. Training-School and Matron.*Greenleaf R. Tucker, *Apothecary.*Edw. J. Cutter, M.D., *Office Assistant.*Miss Olivia H. Hews, *Housekeeper.*

REPORT OF THE TRUSTEES.

CITY HOSPITAL, BOSTON, April 30, 1883.

To the Honorable City Council:—

The Trustees of the City Hospital, in compliance with the Ordinances, respectfully present herewith their Nineteenth Annual Report.

Number of patients remaining in the Hospital,		
April 30, 1882		279
Admitted during the year—		
Medical	2,551	
Surgical	1,798	
Ophthalmic	74	
		4,423
Treated during the year		4,702
Discharged	3,948	
Died	473	
		4,421
Remaining in Hospital, April 30, 1883		281
Largest number in Hospital at any time		341
Smallest number in Hospital at any time		241
Daily average number of patients		286
Average length of stay of each patient (days)		22.17

Number of patients treated in the out-patient department, classified according to their diseases:—

Medical diseases	2,508
Surgical “	5,651
Diseases of the Eye	1,626
“ “ Ear	364
“ “ Skin	894
“ of Women	388
“ “ Nervous System	299
“ “ the Throat	444
Total	12,174

Number of visits to the Hospital classified according to diseases : —

Medical diseases	4,720
Surgical "	15,743
Diseases of the Eye	10,450
" " Ear	2,132
" " Skin	2,138
" of Women	1,044
" " Nervous System	1,671
" " the Throat	1,657
Surgical out-patients treated at accident room, and not elsewhere included	1,068
	40,623

The report of the Superintendent and Resident Physician, presented herewith, contains, besides other information, a statement of the expenditures of the year, and is accompanied by the reports of the medical staff. These reports give in detail the number of patients treated in the Hospital, and the number treated in the out-patient department during the year, with classified statements of their diseases and the results of treatment.

The whole number of patients in the Hospital during the year was 4,702, and they were under treatment an average of 22.20 days each, making a total of 104,261 days, or 14,894 weeks. The entire cost of maintaining the Hospital during the year was at the rate of \$9.80+ per week . \$145,965 57

But of the patients enumerated above,
503 paid for 1,695 weeks' board . . . 13,504 44

Leaving, therefore, the sum of . . . \$132,461 13

as the cost to the city of treating 4,199 non-paying patients, for a total of 12,645 weeks. But after deducting money received from pay-patients, stock on hand, etc., and averaging the *net cost* of maintaining the Hospital for the year, among all the patients treated, we find the average cost to the city, of board for each patient, was \$8.91 per week.

The report of the Superintendent explains in detail the expenditures made during the year in maintaining the Hospital.

By his statements, and the above figures, and by a comparison with previous reports, it will be seen that during the

past year the largest number of patients in the Hospital at any one time was 5 more than the previous year; the smallest number at any one time was 11 more, and the average length of stay of each patient was nearly one day less.

The net cost in maintaining the Hospital has been \$7,702.-01 more than last year. This has been mainly due to the higher cost of subsistence and general supplies, and was anticipated last year in our report when we said, "The cost during the coming year will be still greater unless there is a decrease in the cost of supplies, which is not now anticipated. The expensive outlay incident to the care of the sick does not allow retrenchment, without lowering the standard heretofore maintained as a first-class Hospital, wholly devoted to acute diseases." This is considerably below the weekly cost in several other general hospitals, and cannot well be diminished, without being directly felt by the sick who are brought to us to be cared for. So fully were the Trustees convinced of this necessity that this year they asked for an appropriation slightly larger than that of last year, which was granted.

The number of weeks' board this year was 384 more than last; 316 more patients were admitted this year than last, and the total who have received treatment in the Hospital was 4,702,—an excess of 420 over last year.

Last year 5,824 patients were examined for admission; this year, 5,991. Last year 1,735 applicants were denied admission; this year, 1,568. By reference to the report of the Superintendent the reasons for rejection appear in detail. A large proportion of the rejected patients could have been relieved, provided they could have been received; but most of these were treated at the out-patients' departments, or referred elsewhere, according to the needs or feasibility in each case.

There have been times, however, when very urgent and pressing cases have been turned away, because it was impossible to furnish them accommodation. The treatment of the sick demands classification, and often special location,—as to sex, disease, whether surgical, medical, contagious, or mental. It often happens, that, while there is room for one sex or class of cases, there is an overcrowding of another; and this leads to rejection, if the case at the time happens to be one for which there is no room. This has been especially embarrassing in the infectious diseases, such as diphtheria, scarlet fever, measles, erysipelas, and blood-poisoning diseases, or surgical diseases, having alcoholism as a complication. This is the only Hospital in or near Boston where the above diseases will

be received, and, as a consequence, a larger percentage of these than other diseases gravitates to this Hospital. The accommodations here are limited; each disease must be isolated, and, as the number of patients applying who are sick with contagious illness varies, it again happens that there may be room for scarlet fever, but none for diphtheria. It often happens that, in isolating rooms with 4 beds each, 8 patients of both sexes may occupy the rooms which could be utilized for 32 patients, provided no classification was necessary. This condition of classification will be still further illustrated by the fact that, on a given day, 28 patients only could be received into rooms which might have been used by 64 patients, no other condition than sex being considered. The Trustees deem it advisable to call attention to the above facts, since there has been a growing demand for room for this class of cases. The building for infectious diseases was erected in 1866; and, while the Hospital has been enlarged in accommodations for general medical and surgical diseases, the number of beds for contagious diseases remains the same as 17 years ago. Since that time the population of the city, by annexation and otherwise, has increased nearly 50 per cent.

To this add the fact that the increase in the number of infectious diseases has been proportionately larger than the growth of the population. Other facts could be added to show that, while the demand for room for this class of cases has probably been doubled, there have been no increased accommodations in 16 years. This subject has been alluded to in the annual reports for several years. Last year we said, "A large proportion of urgent cases rejected were those suffering from contagious diseases. There is no need so imperative as accommodations for those requiring special hospital treatment. The remedy can only be found in an additional ward for medical diseases, and must soon be provided to meet the increasing demands for hospital treatment." In the seventeenth annual report it was said, "If the Hospital continues to receive contagious diseases to the same extent as during the past year, it must speedily have larger and better accommodations." The want of such room has caused the rejection of a large number of cases, and some, under conditions that were a hardship to the patient, or the friends, as well as danger to the public health. Such rejection brings upon the Hospital criticism, for which the Trustees cannot be held responsible as long as this deficiency exists, and it cannot discharge its duty to the public until increased accommodations are supplied.

The Trustees for several years have called the attention of the City Council to the subject of the support at the City Hospital of non-resident patients. Some progress has been made during the past year. A general but incomplete investigation has been made as to the claims of those admitted, and it has been found that there has been chargeable to —

State of Massachusetts	30,319 days' board
Towns and cities (other than Boston)	2,623 " "
Total	32,942 " "

or 4,902 weeks' board, which, at the cost of the present year, \$9.37 per week, would represent the sum of \$45,931.74 expended from the appropriation of this year, on account of those having no legal settlement in Boston. Of the above \$45,931, only \$2,164 has been collected, and that from towns and cities, leaving \$43,767 uncollected. In other words nearly one-third of the benefits of the City Hospital during the past year has been given to those who have no legal claim. Nearly the entire amount is due from patients chargeable to the State.

The State authorities are reluctant to reimburse the city for patients treated here who are the wards of the State. The Trustees, through the Corporation Counsel, again appeared before the State Board of Charities, in March, and the subject was more fully discussed. A brief of the claim of the city has been published by the Law Department, and is accessible to those desiring it. It is believed that eventually a sound basis of understanding will be established, and that the claims of the city will be acknowledged.

The work of the year has been very satisfactory. The statistical tables will exhibit, in detail, the great amount of service rendered to the public, and, we believe, in a manner not excelled by other hospitals.

Those not familiar with the daily routine of hospital work cannot readily appreciate the amount of labor involved in the admission, treatment, and discharge of a single patient, however trivial the case. The admissions and discharges of patients each day averaged 24, and in a single day amounted to 51 patients.

No new departure has been made in the work of the year, but much has been done to keep the Hospital up to a higher standard in the care of the patients. During the year con-

siderable has been accomplished in repairs. All basement corridors have been repainted, and also the corridors and stairways in Pavilions I. and II. Wards Q, R, and S have been repainted and colored, and much work done elsewhere to keep the various wards, rooms, and the furniture in repair.

The Trustees seriously regret that the City Council did not grant their repeated request for an appropriation with which to build a pavilion for nurses. This is the sixth year that mention has been made of it. The want of a suitable building has been the cause of much ill-health and inconvenience among the nurses; it would have supplied us with rooms for 50 more patients, and would enable us to isolate delirious patients, those very ill or dying, which now can, as a rule, be provided for only in associate wards. While the City Hospital is, and has been, foremost in many of the cardinal points of a good hospital, it is far behind most others in its accommodations for those who nurse the sick. The necessity is acknowledged by all, and we would respectfully urge the City Council to benefit the sick by carrying out this measure, which has been so fully explained in previous reports.

The accommodations for the service of out-patients are, and have been for several years, entirely inadequate. The Trustees hoped that their request for the means to enlarge and re-arrange this service could be granted. The present building was erected in 1868, at which time there were only 3 services to out-patients, and the number of visits was 16,403. There are now 8 services, and the visits of out-patients this year were 40,623. The increase in the number of services has more than doubled, and the great lack of room necessitates alternate days for the various diseases; the number of visits has more than doubled. There is much confusion, and the physicians work at great inconvenience, and, as a consequence, to the detriment of those seeking relief. It is in this department that the greater number are assisted at the least cost, and, if the required room could be obtained with better outfit, an incalculable benefit would be conferred upon the sick poor. It would likewise be sound economy, as many cases could be treated as out-patients at a nominal expense, which now, by reason of this want, require admission to the Hospital.

The report of the Superintendent will furnish much information concerning the work of the year.

The report of the Medical Staff exhibits, in detail, much that must be instructive and valuable to those interested in the medical and surgical statistics.

There have been but few changes during the year in the Hospital staff. Dr. James H. Denny was appointed Visiting Physician to the Department for Diseases of the Nervous System. Dr. C. F. Folsom was appointed Physician to Out-Patients' Department for Diseases of the Nervous System. Dr. Maurice H. Richmond resigned as Surgeon to Out-Patients, and Dr. Abner Post was elected to the vacancy. Dr. J. R. Chadwick resigned as Physician to Out-Patients' Department for Diseases of Women, and Dr. George H. Bixby was elected in his place. Dr. E. G. Cutter resigned as Pathologist, and Dr. Gannett was chosen to the position. Dr. H. C. Ernst was elected Assistant Pathologist.

The thanks of the Board are due to the many friends of the Hospital, who have continued during the year to manifest their interest in the patients as in former years.

In conclusion, the Trustees desire to bear testimony to the faithful services of the Physicians and Surgeons, and to the excellent management of the Hospital by its Superintendent, Dr. Rowe.

The Board of Trustees,

G. W. POPE,

President.

REPORT OF THE SUPERINTENDENT AND RESIDENT PHYSICIAN.

CITY HOSPITAL, April 30, 1882.

To the Board of Trustees:—

GENTLEMEN,—I have the honor to present herewith my Annual Report of the Hospital for the past year.

The following table shows the number of patients who have, each year, applied for admission, and been treated at the Hospital:—

	Patients examined for admission.	Patients admitted.	Patients accident- ally injured.	Number of out-pa- tients treated.
From June 1, 1864, to December 31, 1864.....	703	475	129	371
From January 1, 1865, to December 31, 1865	1,451	1,066	242	1,143
From January 1, 1866, to December 31, 1866	1,749	1,432	345	3,324
From January 1, 1867, to December 31, 1867	1,913	1,534	328	7,015
From January 1, 1868, to December 31, 1868	2,729	2,078	417	8,794
From January 1, 1869, to April 30, 1870.....	4,632	3,054	482	11,791
From May 1, 1870, to April 30, 1871.....	3,977	2,396	525	8,899
From May 1, 1871, to April 30, 1872.....	4,387	2,873	565	8,947
From May 1, 1872, to April 30, 1873.....	4,326	3,304	660	7,526
From May 1, 1873, to April 30, 1874.....	4,250	3,201	804	9,272
From May 1, 1874, to April 30, 1875.....	4,652	3,424	756	8,732
From May 1, 1875, to April 30, 1876.....	4,434	3,180	689	9,413
From May 1, 1876, to April 30, 1877.....	4,713	3,580	663	8,526
From May 1, 1877, to April 30, 1878.....	5,068	4,034	604	9,658
From May 1, 1878, to April 30, 1879.....	5,285	4,323	734	10,419
From May 1, 1879, to April 30, 1880.....	5,444	3,995	505	10,309
From May 1, 1880, to April 30, 1881.....	5,781	4,418	553	10,605
From May 1, 1881, to April 30, 1882.....	5,842	4,107	567	12,035
From May 1, 1882, to April 30, 1883.....	5,991	4,423	666	12,174
Total	77,327	56,897	10,234	158,953

The number of patients classified according to their diseases, who visited the Hospital for advice and treatment in the out-patient department, was as follows:—

Medical diseases under charge of Drs. Forster and
 Rotch 2,508

APPLICANTS EXAMINED FOR ADMISSION DURING THE YEAR.

Year.	Month.	Number examined.	Number admitted.	Number not admitted.
1882.	May	515	380	135
	June	495	336	159
	July	512	384	128
	August	514	384	130
	September	480	342	138
	October	458	339	119
	November	424	311	113
	December	447	332	115
1883.	January	549	430	119
	February	455	347	108
	March	594	440	154
	April	548	398	150
	Total	5,991	4,423	1,568

APPLICANTS NOT ADMITTED.

Cause of rejection.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	Total.
For want of accommodation,	6	3	2	1	4	5	6	5	11	1	16	12	72
Referred to out-patient departments	37	54	40	45	47	42	25	29	25	26	32	35	437
Non-resident	19	17	6	2	2	8	13	14	25	18	22	15	161
Visited, but changed their minds	..	1	4	1	1	3	4	1	2	1	1	2	21
Absent from home when called upon	1	3	1	4	..	1	3	1	1	1	1	4	21
Chronic and incurable	25	31	26	34	31	24	24	21	20	29	37	35	337
Delirium Tremens and Alcoholism	15	11	20	17	16	11	17	13	8	6	18	14	166
Venereal	18	20	12	12	20	15	10	14	9	9	9	15	163
Pregnant	2	4	2	3	8	6	..	4	..	3	3	3	38
Malingers	6	3	5	2	2	1	3	3	8	5	5	2	45
Miscellaneous	4	7	6	6	6	2	4	6	7	7	10	7	72
Insane	1	1	4	..	1	..	1	1	1	1	..	5	16
Under age	1	4	..	3	..	1	3	3	2	1	..	1	19
Total	135	159	128	130	138	119	113	115	119	108	154	150	1,568

STATISTICAL STATEMENT.

Applicants for admission	5,991
Admitted of the above	4,423
Patients accidentally injured	666
Patients in the Hospital, May 1, 1882	279
Total number in Hospital during the year	4,702
Total number, including out-patients, treated during the year	17,944
Discharged, including deaths	4,421
Daily average number in Hospital	286
Largest number at any time in Hospital	341
Smallest number at any time in Hospital	241
Average time of remaining in hospital (days)	22.17

RECAPITULATION.

Medical patients admitted	2,551
Surgical " "	1,798
Ophthalmic " "	74
Total	4,423

EMPLOYMENT OF PATIENTS ADMITTED DURING THE YEAR.

MALES.		<i>Brought forward</i>		192
Actors	3	Blanket-maker	1	
Artists	3	Bridge-builder	1	
Apprentices	8	Boxer	1	
Auctioneer	1	Civil engineers	3	
Butchers	15	Coachmen	15	
Boiler-makers	11	Car-drivers	3	
Bricklayers	8	Clerks	86	
Butcher-boy	1	Carpenters	117	
Boatman	1	Cash-boys	5	
Blacksmiths	36	Carriage-makers	2	
Bleacher	1	Coal-dealers	4	
Bartenders	28	Confectioners	3	
Basket-maker	1	Car-manufacturers	2	
Book-keepers	8	Carriage-smith	1	
Bootblack	1	Conductors	15	
Bakers	25	Circus-follower	1	
Barbers	16	Chair-maker	1	
Bookbinder	1	Crockery-dealer	1	
Banker	1	Cap-makers	2	
Box-makers	2	Coopers	10	
Brewers	9	Cigar-makers	9	
Brass finishers	3	Curriers	18	
Brush-makers	3	Compositors	4	
Brickmakers	1	Commercial travellers	20	
Base-ball player	1	Cabinet-makers	19	
Boot-makers	3	Clothes-dealer	1	
Billiard-maker	1	Cashiers	2	
		Crimper	1	
<i>Carried forward</i>	192	<i>Carried forward</i>	540	

<i>Brought forward</i>	540	<i>Brought forward</i>	1,609
Coal-heaver	1	Lamplighters	2
Carriage-washers	3	Liquor-dealers	4
Collector	1	Loom-fixer	1
Chain-maker	1	Leather-dressers	3
Carpet-layer	1	Lead-worker	1
Caulkers	2	Lawyers	15
Custom House officer	1	Laundry-men	2
Curtain-maker	1	Millwright	2
Druggists	7	Machinists	45
Designers	2	Mill-hands	6
Domestics	26	Merchants	6
Dry-goods	1	Miner	1
Dyers	3	Masons	22
Die-cutter	1	Moulders	14
Engineers	11	Milkmen	4
Editor	1	Musicians	3
Elevator-boys	7	Marble-workers	4
Errand-boys	14	Manufacturer	1
Expressmen	4	Morocco-dresser	1
Farmers	29	Newsboys	2
Factory-operators	3	Net-maker	1
Foundry-men	4	Nurses	9
Fish-canner	1	No occupation	110
Fishermen	19	Oyster-opener	1
Fish-dealers	3	Office-boys	5
Fruit-dealers	6	Overseers	4
Flax-dresser	1	Oil-pressman	1
Firemen	26	Polishers	33
Finishers	3	Plumbers	17
File-cutter	1	Printers	14
Flagman	1	Piano-forte makers	5
Florists	12	Peddlers	33
Firework-maker	1	Physicians	6
Gas-fitters	8	Provision-dealers	7
Gilders	2	Packers	10
Grocers	6	Pressmen	5
Glass-makers	5	Painters	64
Hostlers	37	Porters	21
Hoop-skirt maker	1	Pressers of clothing	3
Hairdresser	1	Pile-drivers	3
Horse-dealer	1	Police officers	2
Hotel-business	1	Powder-maker	1
Harness-makers	9	Photographers	3
Hatters	4	Plasterers	13
Horse-jockeys	2	Potters	2
Hardware	1	Page	1
Hack-drivers	5	Puddler	1
Iron-workers	8	Riggers	5
Inventors	3	Rope-makers	5
Interpreter	1	Roofers	7
Instrument-maker	1	Reporter	1
Junk-dealers	8	Riveter	1
Jewellers	4	Rolling-mills	1
Joiner	1	Rattan-worker	1
Janitors	7	Rubber-workers	10
Journalist	1	Real estate brokers	3
Laborers	687	Restaurant-keepers	2
Locksmiths	2	Students	6
Landlord	1	Seamen	91
Longshoremen	60	Sewing-machine operator	1
Lithographers	4	Slaters	4
<i>Carried forward</i>	1,609	<i>Carried forward</i>	2,261

<i>Brought forward</i>	2,261	<i>Brought forward</i>	2,804
Sugar-refiners	3	Watchmaker	1
Shoemakers	41	Wood-workers	10
Soldier	1	Watchmen	6
Sawyers	15	Wheelwrights	5
Saw-filer	1	Wool-sorters	2
Scholars	97		
Scissors-grinder	1	Total	2,828
Stewards	8		
Spinners	4		
Stevedores	4		
Sail-makers	2		
Stone-cutters	25		
Ship-carpenters	9		
Silversmith	1		
Sausage-maker	1		
Showmen	2		
Silver-plater	1		
Ship-joiner	1		
Steam-gauge manufacturer	1		
Stove-fitter	1		
Store-keepers	3		
Section hands	2		
Stable-keepers	2		
Shooting-gallery	1		
Submarine diver	1		
Steam-fitters	2		
Tailors	46		
Train-men	13		
Teacher	1		
Teamsters	110		
Trunk-makers	3		
Telegraph boys	3		
Truss-maker	1		
Traders	3		
Tinsmiths	10		
Telegraph operator	1		
Tireman	1		
Unknown	67		
Upholsterers	13		
Undertaker	1		
Varnishers	2		
Waiters	32		
Weavers	5		
Wire-worker	1		
<i>Carried forward</i>	2,804		

FEMALES.

Cooks	50
Compositor	1
Clairvoyant	1
Domestics	714
Dressmakers	28
Editress	1
Factory operators	3
Housekeepers	119
Housewives	187
Hairdressers	2
Laundresses	67
Librarian	1
Landlady	1
Lace-worker	1
Milliners	4
Nurses	45
No occupation	133
Nursery-maids	4
Paper-ruler	1
Proof-reader	1
Rubber-workers	4
Rag-pickers	4
Shop-girls	9
School-girls	53
Students	15
Seamstresses	65
Saleswomen	4
Tailoresses	16
Teachers	5
Unknown	35
Upholstress	1
Weavers	4
Waitresses	15
Wool-sorter	1

Total.....1,595

NATIVITY OF PATIENTS ADMITTED DURING THE YEAR.

Boston	865	West Indies	4
Other towns in Massachusetts ..	301	England	229
Maine	200	Ireland	1,542
New Hampshire	80	Germany	121
Vermont	25	France	6
Rhode Island	17	Scotland	66
Connecticut	24	Italy	15
Middle Atlantic States	149	Sweden	50
Southern States	14	Norway	27
Central States	22	Spain	2
Pacific States	4		
British Provinces	435	<i>Carried forward</i>	4,198

<i>Brought forward</i>	4,198	Poland	14
Denmark	12	District of Columbia.....	2
Prussia	4	China	1
Wales	8	Cuba	1
Belgium	1	Egypt	1
Newfoundland	36	Greece	5
Labrador	1	Hungary	3
Austria.....	6	Heligoland	1
Finland.....	4	Sicily	2
Western Islands.....	14	At Sea	3
South America	1	Unknown.....	74
Russia	17		
Portugal.....	7	Total.....	4,423
Switzerland	7		

CONDITION OF PATIENTS DISCHARGED.

Well	1,792	Died	473
Relieved.....	1,915	Eloped	6
Not relieved.....	145		
Not treated	92	Total.....	4,423

AGES OF PATIENTS ADMITTED DURING THE YEAR.

MALES.		FEMALES.	
Under 12 months.....	12	Under 12 months.....	8
From 1 to 5 years	40	From 1 to 5 years	26
“ 5 to 10	67	“ 5 to 10	52
“ 10 to 20	288	“ 10 to 20	195
“ 20 to 30	847	“ 20 to 30	521
“ 30 to 40	648	“ 30 to 40	312
“ 40 to 50	414	“ 40 to 50	205
“ 50 to 60	274	“ 50 to 60	131
“ 60 to 70	142	“ 60 to 70	91
“ 70 to 80	43	“ 70 to 80	27
“ 80 to 90	9	“ 80 to 90	4
Unknown	44	Unknown	23
Total.....	2,828	Total.....	1,595

CIVIL CONDITION.

MALES.		FEMALES.	
Married	963	Married	496
Single	1,573	Single	778
Widowers	250	Widows	308
Unknown.....	42	Unknown.....	13
Total.....	2,828	Total.....	1,595

The number of patients admitted with accidental injuries was 666 ; and of all patients treated in the Hospital 149 died within forty-eight hours after admission.

NUMBER OF PATIENTS TREATED EACH YEAR, AND RATE OF MORTALITY.

	No. of patients treated.	Died.	Rate of mortality.
1864, 7 months, ending Dec. 31 .	475	47	.099
1865, year ending Dec. 31 .	1,167	97	.083
1866, " " " .	1,549	123	.080
1867, " " " .	1,697	146	.086
1868, " " " .	2,219	163	.073
1870, 16 months, ending April 30,	3,235	246	.076
1871, year ending April 30 .	2,569	215	.083
1872, " " " .	3,054	247	.080
1873, " " " .	3,527	351	.099
1874, " " " .	3,435	282	.082
1875, " " " .	3,662	291	.079
1876, " " " .	3,421	290	.084
1877, " " " .	3,843	287	.074
1878, " " " .	4,334	311	.071
1879, " " " .	4,631	347	.074
1880, " " " .	4,298	401	.093
1881, " " " .	4,707	421	.089
1882, " " " .	4,382	415	.094
1883, " " " .	4,702	473	.100

DISBURSEMENTS FROM MAY 1, 1882, TO APRIL 30, 1883.

Articles.	Quantity.	Cost.	Average Price.
Beef	98,187 lbs.	\$10,590 55	10 $\frac{3}{4}$ c. per lb.
Mutton and Lamb	21,400 "	2,539 93	11 $\frac{3}{4}$ " "
Veal	4,986 "	565 69	11 $\frac{3}{4}$ " "
Fowls	24,014 "	4,965 13	20 $\frac{5}{8}$ " "
Pork and Hams	8,703 "	1,121 75	12 $\frac{3}{4}$ " "
Lard	2,439 "	304 65	12 $\frac{1}{2}$ " "
Butter	18,783 "	6,089 75	32 $\frac{1}{2}$ " "
Cheese	2,224 "	319 89	14 $\frac{1}{4}$ " "
Eggs	15,208 doz.	4,115 88	27 $\frac{1}{8}$ " doz.
Milk	25,632 cans.	8,881 30	34 $\frac{1}{2}$ " can.
Flour	554 bbls.	4,369 75	\$7 88 " bbl.
Water	1,413,267 ft.	2,254 88	15 c. " hund. ft.
Ice	649 $\frac{13}{100}$ tons.	1,170 75	18 03 " ton.
Coal	2,093 $\frac{850}{2240}$ "	12,489 40	5 96 " "
Carried forward		\$59,778 30	

DISBURSEMENTS. — *Continued.*

Articles.	Cost.
<i>Brought forward</i>	\$59,778 30
Vegetables	5,149 40
Fish	1,701 76
Groceries	7,692 50
Liquors	2,082 09
Ale, Porter, and Cider	538 40
Alcohol	721 48
Medical Supplies	5,189 29
Compress and Bandage	4,194 56
Surgical Instruments	881 90
Salaries and Labor	35,271 05
Wood and Charcoal	195 00
Stable, Repairs, Harnesses and Vehicles	1,388 20
Gas	5,525 51
Printing and Annual Reports	1,164 38
Stationery	820 29
Furnishing	2,478 66
Dry Goods	1,050 90
Painting	1,998 68
Repairs on Buildings	4,779 38
Grounds	793 29
New Fixtures	1,322 07
Medical Library	161 08
Telephone Rentals, Repairs, and Service	435 98
Watering Streets	120 00
Miscellaneous and Advertising	230 42
Fire Extinguishers	300 00
Total expenditure in maintaining the Hospital from May 1, 1882, to April 30, 1883	\$145,965 57
New Furniture	786 78
Ambulance Service	422 84
Tents	458 29
Quinquennial Report	758 87
Expenses incurred in ascertaining settlements of patients	1,318 50
<i>Carried forward</i>	\$149,710 85

DISBURSEMENTS. — *Concluded.*

Articles.		Cost.
<i>Brought forward</i>		\$149,710 85
Beds and Bedding		2,788 42
Total Expenditures		\$152,499 27
STOCK ON HAND, MAY 1, 1882.		
General Supplies	\$1,690 00	
Medical Supplies	1,740 00	
Liquors	615 00	
		\$4,045 00
DEDUCT.		\$156,544 27
CR.		
Stock on Hand, April 30, 1883.		
General Supplies	\$1,125 00	
Medical Supplies	1,842 00	
Liquors	380 00	
		\$3,347 00
Furniture, Beds, and Bedding	\$3,575 20	
Ambulance Service	422 84	
Tents	458 29	
Quinquennial Report	758 87	
Settlement Expenses	1,318 00	
Income of Paying Patients	13,504 44	
Sale of Old Material	147 50	
Fire Extinguishers	300 00	
		23,832 14
Net cost of maintaining Hospital from May 1, 1882, to April 30, 1883		\$132,712 13

The foregoing statistics show that the total expenditure during the past year has been \$152,499.27. This sum is reduced to \$145,965.57 by deducting from the total expenditure the cost of tents, quinquennial report, new beds and bedding, new furniture, expenses incurred in tracing settlement of patients, which are not chargeable to the current expenses of the Hospital. This amount includes every expenditure, and gives a cost of \$9.80 per week for each

patient. If, also, we allow for the difference in stock in the beginning and close of the year, the income from paying patients, sale of old material, and income from trust fund, we have as a net cost to the city of running the Hospital \$132,712.13, or, *per capita* for each patient treated during the year, \$8.91 per week.

The income from paying patients has been \$13,504.44, — an increase of \$273.15 over last year.

The largest number of patients at any one time was 341 against 336 last year; the smallest number was 241 against 230 last year. The daily average was 286 against 282 last year. The whole number under treatment was 319 more than last year, and the average stay of each patient was 1.08 days more than last year.

The number of patients admitted with accidental injuries was 666, a considerable increase from the previous year. Of all patients admitted, 149 died within 48 hours after admission, which is 10 more than last year. The rate of mortality was 10 per cent. If from the total number of deaths we deduct those brought to the Hospital in a dying condition, the annual mortality is reduced from .10 to .07.

As will be seen by the statistics the benefits of the Hospital have been received by 17,944 persons, — a number considerably larger than any previous year.

While the total number each year increases, the number of available beds remains the same, and, as a consequence, the stay of each patient is shortened. The character of the cases admitted is more serious or acute, and the intent of the founders of the Hospital is more nearly met, — “that the City Hospital be used for the care and relief, during temporary sickness, of those of its residents who are afflicted by accident or acute disease.”

No special event is to be chronicled in the history of the year. Various improvements of a minor character have been made, and much has been done to keep in as good repair, as our resources would allow, all parts of the building, which suffer great wear and tear from the character of the work and the occupants.

The Training-School for Nurses, now in its sixth year, continues its good work with the sick. The standard of 62 nurses has been found sufficient at most times to meet the requirements of nursing, and has been followed by a marked decrease in the amount of ill-health and sickness. Most of the sickness has been of a nature not attributable to undue strain, as was conspicuous in the two previous years, but to other causes.

During the past year 14 pupils have finished the required

course, and received diplomas. There are now 1 night supervisor of nurses, 1 housekeeper, 3 head-nurses, — all graduates of our own school; 11 senior pupils, acting head-nurses; 43 assistant nurses who are pupils, and 3 probationers. Since the date of the last report 35 have entered, and 35 have left the school; 14 of the latter were graduates of this year's class, and 4 of previous classes; 5 were permitted to resign on account of lack of health or strength; 6 were probation nurses, who were rejected or left voluntarily at the end of the trial month; 3 on account of claims of kindred, and 3 were discharged for cause.

The course of instruction has been increased and improved in many ways, and the value of hospital work as an educator has been more apparent this, than any previous year. The graduating class has received 24 lessons in sick-room cookery at the Boston Cooking School. Eighty-seven lessons in *massage* have been given to small classes. The Training School Superintendent has given 197 class recitations, and 4 examinations have been made by the Staff.

The following lectures have been given to the school by members of the Medical Staff:—

4	by Dr. Bolles,	on the Administering of Medicines.
5	“ “ Gay,	Surgical Dressings and Appli- ances.
5	“ “ Gannett,	Anatomy.
6	“ “ Lyman,	Gynæcological Nursing.
3	“ “ Edes,	Physiology and Food.
2	“ “ Rotch,	Diseases of Children.
1	“ “ Cheever,	Before and after Surgical Opera- tions.
2	“ “ Doe,	Obstetrical Nursing.
1	“ “ Wadsworth,	Diseases of the Eye.
1	“ “ Mason,	Fever Nursing.
1	“ “ Draper,	Arrangement of the Sick-room.
1	“ “ Wigglesworth,	Nursing in Skin Diseases.
1	“ “ Tilden,	Syphilis in Adult and Infants.
1	“ “ Post,	Nursing and Dressings of Fract- ures.
1	“ “ Green,	Diseases and care of the Ear.

In September last the school lost the valuable services of Miss A. C. Davis, who, after more than three years' faithful labor, was compelled to withdraw on account of overwork. She was succeeded by Miss Linda Richards, the first Superintendent of Nurses in the organization of the Training School. The Hospital and School have been fortunate in

securing one so familiar with the work, and who is so well fitted, by experience and character, for a most difficult and trying office.

The friends of the Hospital have continued in many ways their kind offices and benefactions to the patients.

My sincere thanks are due to the officers and employés for their faithful services in a work that is always laborious and often irksome.

I am under increased obligations to the gentlemen of the Hospital Staff for advice and assistance.

In presenting this, my Fourth Annual Report to the Trustees, I am deeply grateful for their renewed confidence.

I have the honor to be,

Your obedient servant,

GEO. H. M. ROWE,

Superintendent and Resident Physician.

REPORT OF THE HOSPITAL STAFF.

MEDICAL DISEASES.

Classified according to the Nomenclature of Diseases, as Published by the Royal College of Physicians of London, and American Medical Association.

From May 1, 1882, to May 1, 1883.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
GENERAL DISEASES.											
A.											
Measles		19	14	33	23	1	.....	.....	1	25	8
Scarlet fever.....	3	14	14	28	26	1	.....	.....	3	30	1
Typhus fever.....		2	.....	2	.....	.....	.....	.....	.....	.....	2
Cerebro-spinal fever.....		2	.....	2	.....	.....	.....	.....	2	2	.....
Typhoid fever.....	2	135	91	226	167	14	4	1	38	224	4
Febricula		21	15	36	28	5	.....	.....	.....	33	3
Intermittent fever		33	7	40	34	4	.....	.....	.....	38	2
Diphtheria	1	23	41	64	37	3	2	.....	20	62	3
Erysipelas	7	32	40	72	68	3	.....	.....	2	73	6
Pyæmia		1	.....	1	.....	.....	.....	.....	1	1	.....
Septicemia.....		1	1	2	.....	.....	.....	.....	2	2	.....
B.											
Acute rheumatism	11	105	40	145	107	37	....	1	2	147	9
Subacute rheumatism	2	76	37	113	81	17	.....	.....	.....	98	17
Gonorrhœal rheumatism	1	6	.....	6	2	4	.....	.....	.....	6	1
Synovial rheumatism		1	.....	1	.....	.....	1	.....	.....	1	.....
Muscular rheumatism		1	1	2	2	.....	.....	.....	.....	2	.....
Chronic rheumatism	2	10	8	18	10	9	.....	.....	.....	19	1
Lithæmia		1	.....	1	.....	1	.....	.....	.....	1	.....
Carried forward.....	29	483	309	792	585	99	7	2	71	764	57

MEDICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	29	483	309	792	585	99	7	2	71	764	57
Rheumatic gout		1	...	1	1	...	...	...	...	1	...
Syphilis		3	3	4	1	1	2	...	...	4	...
Secondary	2	1	4	5	1	5	...	...	...	6	1
Tubercular meningitis		1	1	2	...	...	...	...	2	2	...
Phthisis pulmonalis	1	32	9	41	7	23	2	...	9	41	1
Hæmoptysis		4	10	14	6	7	...	...	1	14	...
Acute miliary tuberculosis		1	...	1	...	...	...	...	1	1	...
Diabetes		8	...	8	...	5	2	...	1	8	...
Purpura rheumatica		1	...	1	1	...	...	...	...	1	...
Simple	1	1	...	1	1	1	...	...	...	2	...
Hæmorrhagic		1	...	1	...	...	...	...	...	...	1
Leukæmia		1	...	1	...	...	...	...	1	1	...
Anæmia	2	1	24	25	19	5	...	2	1	27	...
Pseudoleukæmia		...	1	1	...	1	...	...	...	1	...
General dropsy		...	1	1	...	...	...	...	1	1	...
Cerebral syphilis		1	1	2	...	...	...	...	...	...	2
DISEASES OF THE NERVOUS SYSTEM.											
Meningitis		8	1	9	3	...	...	...	5	8	1
Tumor of brain		1	2	3	...	...	...	...	1	1	2
Apoplexy		1	1	2	...	1	...	...	1	2	...
Congestion of brain		1	1	2	1	1	...	...	...	2	...
Sanguineous		1	...	1	...	...	...	...	1	1	...
Sunstroke and effects of		10	1	11	6	3	...	...	2	11	...
Fatty or calcareous degeneration	1	1	...	1	...	1	...	...	1	2	...
Cerebral embolism		1	...	1	...	1	...	...	...	1	...
Impaction of coagula	1	...	...	...	1	...	...	...	...	1	...
Capillary apoplexy		1	...	1	...	...	...	...	1	1	...
Meningeal hæmorrhage		...	1	1	...	...	...	...	1	1	...
DISEASES OF SPINAL CORD AND MEMBRANES.											
Spinal meningitis		1	...	1	1	...	...	...	...	1	...
<i>Carried forward</i>	37	566	368	934	634	154	13	4	101	906	65

MEDICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	37	566	368	934	634	154	13	4	101	906	65
Myelitis.....	2	6	2	8	....	7	1	....	1	9	1
Spinal concussion	1	4	....	4	....	4	....	....	....	4	1
Spinal irritation .....	....	2	....	2	....	1	1	....	....	2	....
Meningo-myelitis.....	1	....	....	....	....	1	....	....	....	1	....
Cerebro-spinal sclerosis .....	....	2	2	4	....	2	1	....	....	3	1
DISEASES OF THE NERVES.											
Hemiplegia	3	20	15	35	....	20	4	....	10	34	4
Paraplegia.....	....	4	3	7	....	4	1	....	1	6	1
Locomotor ataxy.....	1	10	....	10	....	9	2	....	....	11	....
Infantile paralysis .....	....	1	....	1	....	....	1	....	....	1	....
Local paralysis.....	....	3	....	3	....	2	....	....	....	2	1
Neuro-asthenia	1	8	9	17	2	12	3	....	....	17	1
Neuritis brachial plexus .....	....	1	....	1	....	1	....	....	....	1	....
Hystero-epilepsy.....	....	....	1	1	....	1	....	....	....	1	....
Aphasia .....	....	1	....	1	....	1	....	....	....	1	....
FUNCTIONAL DISEASES OF NERVOUS SYSTEM.											
Hyst. monospasms.....	....	2	....	2	1	1	....	....	....	2	....
Infantile convulsions .....	....	1	....	1	....	....	1	....	....	1	....
Epilepsy (Single fit) .....	....	9	4	13	8	3	2	....	....	13	....
Epilepsy	1	11	4	15	4	9	1	....	2	16	....
Shaking palsy.....	....	1	1	2	....	1	....	....	....	1	1
Chorea.....	2	4	5	9	4	7	....	....	....	11	....
Hysteria	2	....	15	15	15	2	....	....	....	17	....
Catalepsy .....	....	....	1	1	1	....	....	....	....	1	....
Neuralgia (General).....	2	9	7	16	9	8	1	....	....	18	....
Facial. Tic douloureux.....	....	1	....	1	....	1	....	....	....	1	....
Hemicrania .....	....	2	....	2	2	....	....	....	....	2	....
Sciatica	2	20	7	27	6	18	2	....	2	28	1
Pleurodynia.....	....	2	2	4	1	2	....	....	....	3	1
Lumbago.....	....	6	1	7	3	4	....	....	....	7	....
<i>Carried forward</i>	55	694	447	1141	690	275	34	4	117	1120	78

MEDICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	55	694	447	1141	690	275	34	4	117	1120	78
Cephalalgia		14	1	15	6	5	2	....	2	15	.....
Intercostal neuralgia		3	1	4	3	1	....	....	....	4	.....
Myalgia		2	3	5	4	....	....	....	....	4	1
Hyperæsthesia .....		....	1	1	....	1	....	....	....	1	.....
Hypochondriasis	2	6	....	6	4	3	....	1	....	8	.....
Vertigo		2	....	2	1	1	....	....	....	2	.....
Crural neuralgia		1	....	1	....	1	....	....	....	1	.....
DISEASES OF INTELLECT.											
Mania		2	1	3	1	1	1	....	....	3	.....
Acute		2	2	4	....	....	4	....	....	4	.....
Transitory mania		1	2	3	1	2	....	....	....	3	.....
Melancholia	1	5	7	12	3	4	3	....	1	11	2
Dementia		1	2	3	....	2	....	....	....	2	1
Hysterical mania .....		....	3	3	1	....	1	....	....	2	1
Paralysis of the insane		2	....	2	....	1	1	....	....	2	.....
DISEASES OF THE CIRCULATORY SYSTEM.											
DISEASES OF THE HEART AND ITS MEMBRANES.											
Pericarditis		5	....	5	1	1	....	....	2	4	1
Valve disease	9	55	39	94	6	53	5	3	31	98	5
Aortic .....		....	1	1	....	1	....	....	....	1	.....
Mitral		4	1	5	1	4	....	....	....	5	.....
Dilatation .....		....	1	1	....	....	....	....	1	1	.....
Fatty degeneration		1	3	4	....	3	....	....	1	4	.....
DISEASES OF THE ARTERIES.											
Aneurism, abdominal .....		....	1	1	1	....	....	....	....	1	.....
Aneurism .....		....	1	1	....	....	....	1	....	1	.....
DISEASES OF THE VEINS.											
Phlebitis		2	....	2	....	1	....	....	1	2	.....
Phlegmasia dolens	1	....	....	....	....	....	....	....	1	1	.....
<i>Carried forward</i>	68	802	517	1319	723	360	51	9	157	1300	89

MEDICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	68	802	517	1319	723	360	51	9	157	1300	89
DISEASES OF RESPIRATORY SYSTEM.											
Croup.....		1	....	1	....	....	1	....	....	1	....
DISEASE OF NOSTRILS.											
Coryza.....		1	....	1	1	....	....	....	....	1	....
DISEASES OF LARYNX.											
Laryngitis.....		2	....	2	1	....	....	....	1	2	....
Sub-acute .....		....	1	1	1	....	....	....	....	1	....
Chronic .....		....	1	1	....	1	....	....	....	1	....
Cancer of larynx .....		....	1	1	....	....	....	....	1	1	....
DISEASES OF TRACHEA AND BRONCHI.											
Tracheal polypus .....		....	1	1	....	....	....	1	....	1	....
Bronchitis.....		7	7	14	7	6	....	....	1	14	....
Acute	2	19	21	40	31	8	....	....	1	40	2
Chronic		15	7	22	4	17	....	....	1	22	....
Capillary		2	....	2	....	....	....	....	2	2	....
Asthma		5	6	11	3	6	1	....	1	11	....
Ulcer of trachea		1	....	1	1	....	....	....	....	1	....
DISEASES OF THE LUNG.											
Pneumonia	14	104	40	144	71	20	1	1	48	141	17
Œdema		1	....	1	....	....	....	....	1	1	....
Emphysema	1	12	5	17	4	9	....	1	3	17	1
Acute pneumonic phthisis	1	5	3	8	2	5	....	....	2	9	....
Chronic pneumonic phthisis	9	82	44	126	2	83	11	3	23	122	13
DISEASES OF THE PLEURA.											
Pleurisy.....	6	51	13	64	30	31	4	....	2	67	3
Chronic pleurisy		5	....	5	2	1	....	....	....	3	2
Empyema	3	5	1	6	1	4	....	....	3	8	1
Pneumo-hydrothorax		2	....	2	....	1	1	....	....	2	....
Pneumothorax	1	2	....	2	....	1	1	....	1	3	....
Pyo-pneumo-thorax		1	....	1	....	....	....	....	....	....	1
<i>Carried forward</i>	105	1125	668	1793	884	553	71	15	248	1771	129

MEDICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	105	1125	668	1793	884	553	71	15	248	1771	129
DISEASES OF THE FAUCES AND PALATE.											
Gastrodynia.....		2	1	3	2	1	.....	.....	.....	3	.....
Tonsillitis	2	22	30	52	50	3	.....	.....	.....	53	1
Abscess of tonsil		4	4	8	7	1	.....	.....	.....	8	.....
DISEASES OF THE PHARYNX.											
Pharyngitis		3	3	6	6	.....	.....	.....	.....	6	.....
Stricture of œsophagus		2	.....	2	.....	1	1	.....	.....	2	.....
DISEASES OF THE STOMACH.											
Gastritis		1	4	5	3	2	.....	.....	.....	5	.....
Chronic ulcer .....		.....	1	1	1	.....	.....	.....	.....	1	.....
Dyspepsia		10	15	25	8	12	1	.....	.....	21	4
Gastric dilatation		1	.....	1	.....	.....	1	.....	.....	1	.....
Hæmatemesis		4	1	5	1	3	.....	.....	1	5	.....
Gastro-duodenitis	1	1	5	6	5	2	.....	.....	.....	7	.....
Gastric cancer		1	2	3	.....	1	1	.....	1	3	.....
DISEASES OF THE INTESTINES.											
Cat. colitis .....		.....	1	1	.....	.....	.....	.....	1	1	.....
Typhlitis peri.....		2	.....	2	1	.....	.....	.....	.....	1	1
Dysentery		8	16	24	15	3	.....	.....	5	23	1
Int. obstruction .....		.....	2	2	.....	.....	1	.....	1	2	.....
Diarrhœa	2	16	11	27	19	4	3	1	1	28	1
Colic		4	1	5	1	1	1	.....	.....	3	.....
Constipation		1	3	4	3	1	.....	.....	.....	4	.....
Enteritis		1	1	2	2	.....	.....	.....	.....	2	.....
Ulcer of intestine .....		.....	1	1	.....	.....	.....	.....	.....	.....	1
DISEASES OF THE LIVER.											
Abscess		1	.....	1	.....	1	.....	.....	.....	1	.....
Simple enlargement		1	.....	1	.....	.....	1	.....	.....	1	.....
Cirrhosis		9	2	11	.....	7	1	.....	3	11	.....
Jaundice		1	2	3	1	.....	.....	.....	1	2	1
<i>Carried forward</i>	110	1220	774	1994	1009	596	82	16	262	1965	141

MEDICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	110	1220	774	1994	1009	596	82	16	262	1965	141
Carcinoma .....	....	5	1	6	....	1	1	....	3	5	1
Hypertrophic cirrhosis .....	....	....	1	1	....	....	....	....	....	....	1
DISEASES OF THE PERITONEUM.											
Peritonitis	1	8	7	15	8	....	....	....	6	14	2
Ascites	1	1	3	4	1	1	....	....	1	3	2
DISEASES OF URINARY SYSTEM. DISEASE OF KIDNEY.											
Bright's kidney .....	....	1	1	2	....	1	....	....	1	2	....
Acute	3	20	11	31	6	20	1	....	4	31	3
Chronic	3	36	7	43	....	26	1	2	17	46	....
Granular .....	....	2	1	3	....	1	....	....	2	3	....
Uræmia .....	....	4	....	4	....	....	....	....	4	4	....
Abscess (Perinephritic) .....	....	1	....	1	....	1	....	....	....	1	....
Pyelitis .....	....	1	....	1	1	....	....	....	....	1	....
Hæmaturia renalis	1	1	....	1	1	....	....	....	....	1	1
Renal calculus .....	....	1	....	1	1	....	....	....	....	1	....
DISEASES OF THE BLADDER.											
Cystitis .....	....	2	3	5	1	4	....	....	....	5	....
Acute .....	....	....	1	1	1	....	....	....	....	1	....
Chronic .....	....	2	....	2	....	....	....	2	....	2	....
Incontinence of urine .....	....	1	....	1	1	....	....	....	....	1	....
Retention of urine .....	....	....	2	2	....	1	....	....	....	1	1
DISEASES OF WOMEN OF THE OVARY.											
Inflammation .....	....	....	2	2	2	....	....	....	....	2	....
DISEASES OF BROAD LIGAMENT.											
Pelvic peritonitis	1	....	8	8	5	2	....	....	1	8	1
Pelvic cellulitis	2	....	23	23	11	10	....	....	....	21	4
Pelvic abscess .....	....	....	7	7	1	3	....	....	3	7	....
Abscess	1	....	....	....	1	....	....	....	1	1	....
Cyst .....	....	....	1	1	....	....	1	....	....	1	....
Periuterine hæmatocele .....	....	....	1	1	1	....	....	....	....	1	....
<i>Carried forward</i>	123	1306	854	2160	1051	667	86	20	305	2129	157

MEDICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	123	1306	854	2160	1051	667	86	20	305	2129	157
DISEASES OF THE WOMB.											
Catarrh (Leucorrhœa)			2	2		2				2	
Subinvolution			1	1	1					1	
Carcinoma	1		5	6		3			3	6	
Epithelioma			6	6		4	1			5	1
Endo-cervicitis	2		7	7	5	4				9	
Lacerated cervix	3		8	8	5	3				8	3
Fibrous tumors			3	3		2		1		3	
Polypus			1	1	1					1	
Endometritis			2	2		2				2	
Erosion of cervix			1	1		1				1	
Displacements:—											
Anteversion			1	1	1					1	
Retroversion	1		8	8	4	4	1			9	
Anteflexion			5	5	2	3				5	
Retroflexion			3	3	2	1				3	
Prolapsus			2	2		2				2	
Ischio-rectal abscess			1	1		1				1	
Rectocele			1	1					1	1	
Inflammation of vagina (specific)			1	1	1					1	
Pruritus			1	1							1
Premature birth			2	2					2	2	
Puerperal state	1		3	3	4					4	
FUNCTIONAL DISEASES OF WOMEN.											
Amenorrhœa			1	1	1					1	
Dysmenorrhœa			4	4	3	1				4	
Menorrhagia			1	1		1				1	
Metrorrhagia			6	6	6					6	
Pregnancy	1		3	3	2	1	1			4	
Menopause			1	1	1					1	
Vomiting of pregnancy			4	4	1	1			1	3	1
<i>Carried forward</i>	132	1306	938	2244	1091	703	89	21	312	2216	163

MEDICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	132	1306	938	2244	1091	703	89	21	312	2216	163
DISEASES OF PREGNANCY.											
Extra-uterine fetation			1	1	1	....	....	....	....	1	....
Recent confinement			1	1	1	....	....	....	....	1	....
Abortion			8	8	8	....	....	....	....	8	....
Premature labor			4	4	4	....	....	....	....	4	....
Labor			1	1	1	....	....	....	....	1	....
Retained placenta			1	1	1	....	....	....	....	1	....
DISEASES OF THE MUSCULAR SYSTEM.											
Progressive muscular atrophy		2	....	2	....	2	....	....	....	2	....
DISEASES OF CELLULAR TISSUE.											
Cellulitis			1	1	....	....	....	1	....	1	....
DISEASES OF CUTANEOUS SYSTEM.											
Erythema			1	1	1	....	....	....	....	1	....
Urticaria (acute)		1	....	1	1	....	....	....	....	1	....
Eczema		4	1	5	3	2	....	....	....	5	....
Zoster			1	1	....	1	....	....	....	1	....
Dermatitis	1	....	....	....	1	....	....	....	....	1	....
Pemphigus			1	1	1	....	....	....	....	1	....
Scleroderma		1	....	1	1	....	....	....	....	1	....
POISONS.											
METALS AND THEIR SALTS.											
Lead		4	1	5	....	5	....	....	....	5	....
Colic	1	5	1	6	2	5	....	....	....	7	....
Palsy		3	....	3	1	1	....	....	....	2	1
Cachexia		1	....	1	....	1	....	....	....	1	....
Encephalopathy		1	....	1	....	1	....	....	....	1	....
VEGETABLE POISONS.											
Opium		3	4	7	7	....	....	....	....	7	....
Opium habit		1	....	1	....	....	....	....	....	....	1
Aconite		1	....	1	1	....	....	....	....	1	....
<i>Carried forward</i>	134	1333	965	2298	1126	721	89	22	312	2270	165

MEDICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	134	1333	965	2298	1126	721	89	22	312	2270	165
Abuse of alcohol (alcoholismus)		29	13	42	27	13	....	....	1	42	.....
Strychnia .....		....	1	1	1	....	....	....	....	1	.....
Ivy (<i>Rhus tox</i>)		1	....	1	1	....	....	....	....	1	.....
Poisoning		1	....	1	1	....	....	....	....	1	.....
GASEOUS POISONS.											
Coal gas		2	....	2	....	....	....	....	1	1	1
UNCLASSIFIED.											
Debility	5	34	54	88	46	36	5	2	....	89	4
Diagnosis undetermined		8	4	12	1	3	....	1	7	12	.....
Infancy		5	5	10	8	1	....	....	1	10	.....
Inanition		1	....	1	....	1	....	....	....	1	.....
Ophthalmia neonatorum		1	....	1	....	1	....	....	....	1	.....
Surgical		8	8	16	3	7	2	3	....	15	1
Epistaxis		1	....	1	1	....	....	....	....	1	.....
Gonorrhœa		2	1	3	1	....	....	2	....	3	.....
Laceration of perineum .....		....	6	6	2	2	2	....	....	6	.....
Spinal caries	2	....	2	2	....	3	1	....	....	4	.....
Exophthalmic goitre	1	....	2	2	....	2	....	....	....	2	1
Tremor of hands		1	....	1	....	1	....	....	....	1	.....
Fracture of skull		1	....	1	....	....	....	....	1	1	.....
Transferred for surgical treatment		1	2	3	....	....	1	2	....	3	.....
No disease	1	7	11	18	12	1	2	4	....	19	.....
Parasitic (intestinal)		2	....	2	....	2	....	....	....	2	.....
Lymphangitis		1	....	1	....	1	....	....	....	1	.....
Lateral sclerosis		1	....	1	....	....	1	....	....	1	.....
Anterior poliomyelitis		1	....	1	....	1	....	....	....	1	.....
Unilateral spasm		1	....	1	1	....	....	....	....	1	.....
Iritis .....		....	2	2	....	1	....	....	....	1	1
Podalgia		1	....	1	....	....	1	....	....	1	.....
Talipes valgus		1	....	1	....	1	....	....	....	1	.....
<i>Carried forward</i>	143	1444	1075	2519	1228	798	104	36	323	2489	173

MEDICAL DISEASES.—*Concluded.*

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	143	1444	1075	2519	1228	798	104	36	323	2489	173
Valgus.....		1	....	1	....	....	....	....	....	....	1
Sarcoma, inguinal glands		1	....	1	....	....	1	....	....	1	....
Adenitis		1	....	1	....	1	....	....	....	1	....
Synovitis, acute		1	1	2	1	1	....	....	....	2	....
Chronic		1	....	1	....	1	....	....	....	1	....
Enteralgia.....		1	2	3	1	2	....	....	....	3	....
Cataract		1	1	2	1	....	....	1	....	2	....
Chronic ulcer of leg.....	1	....	....	....	1	....	....	....	....	1	....
Abdominal tumor .....		....	1	1	....	1	....	....	....	1	....
Poisoned wound		1	....	1	1	....	....	....	....	1	....
No disease .....		....	1	1	....	....	....	1	....	1	....
Heat prostration .....		....	1	1	1	....	....	....	....	1	....
Delirium tremens		2	....	2	....	1	....	....	1	2	....
Tertiary syphilis.....		....	2	2	....	2	....	....	....	2	....
Abscess.....		1	....	1	1	....	....	....	....	1	....
Fissure of anus		1	....	1	....	1	....	....	....	1	....
Internal hæmorrhoids.....		1	....	1	....	....	1	....	....	1	....
Total.....	144	1457	1084	2541	1235	808	106	38	324	2511	174

SURGICAL DISEASES.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 30, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
GENERAL DISEASES.											
Diphtheria		5	2	7	1	.....	.....	.....	6	7	
Phagedæna		3	1	4	2	2	.....	.....	.....	4	
Erysipelas											
Simple.....	1	11	11	22	13	7	.....	.....	2	22	1
Phlegmonous		1	1	2	1	.....	.....	.....	.....	1	1
Diffuse inflammation of cellular tissue		1	.....	1	1	.....	.....	.....	.....	1	.....
Hæmatophilia.....		1	.....	1	.....	1	.....	.....	.....	1	.....
Pyæmia		3	.....	3	.....	.....	.....	.....	3	3	.....
Chronic osteo-arthritis	3	4	1	5	1	3	1	1	2	8	.....
Syphilis											
Primary.....		1	.....	1	.....	.....	1	.....	.....	1	.....
Secondary		5	3	8	.....	7	.....	.....	.....	7	1
Tertiary.....		2	3	5	1	3	.....	.....	.....	4	1
Hard chancre.....		2	.....	2	.....	1	.....	.....	.....	1	1
Soft chancre		4	2	6	1	5	.....	.....	.....	6	.....
Bubo (hard or suppurating)		2	.....	2	.....	2	.....	.....	.....	2	.....
Cancer .....		.....	1	1	1	.....	.....	.....	.....	1	.....
Epithelial	1	8	4	12	3	7	2	.....	1	13	.....
Melanotic .....		.....	2	2	.....	1	.....	1	.....	2	.....
Sarcoma	1	6	2	8	1	5	.....	.....	1	7	2
NON-MALIGNANT TUMORS.											
Adenoma		1	.....	1	.....	1	.....	.....	.....	1	.....
Fatty.....		2	3	5	3	.....	.....	.....	1	4	1
Glandular .....		.....	1	1	.....	.....	.....	.....	1	1	.....
Hæmatoma.....		2	1	3	1	1	.....	.....	1	3	.....
Myxoma		1	.....	1	.....	1	.....	.....	.....	1	.....
Cysto-sarcoma.....	1	.....	.....	.....	.....	1	.....	.....	.....	1	.....
Lupus .....		.....	5	5	.....	4	.....	.....	.....	4	1
Carried forward	7	65	43	108	30	52	4	2	18	106	9

SURGICAL DISEASES — *Continued.*

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 30, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	7	65	43	108	30	52	4	2	18	106	9
DISEASES OF THE BRAIN AND ITS MEMBRANES.											
Meningitis		1	...	1	1	...	...	...	...	1	...
Diseases of the cerebral arteries.....											
Embolism.....		...	1	1	...	...	1	...	...	1	...
DISEASES OF THE NERVES.											
Neuroma.....		1	1	2	...	2	...	...	...	2	...
Paraplegia		1	...	1	...	1	...	...	...	1	...
FUNCTIONAL DISEASES OF NER- VOUS SYSTEM.											
Tetanus		5	...	5	...	...	...	...	5	5	...
Neuralgia		2	...	2	...	...	...	2	...	2	...
Tic douloureux.....		...	1	1	...	1	...	...	...	1	...
Sciatica		1	...	1	1	...	...	...	...	1	...
DISEASES OF THE EAR.											
Disease of mastoid cells		1	1	2	...	2	...	...	...	2	...
Necrosis of petrous bone.....		5	...	5	1	1	...	...	2	4	1
Disease labyrinth.....	1	...	...	...	...	...	1	...	...	1	...
Polypus.....		2	...	2	...	2	...	...	...	2	...
Acute Inflam. mid. ear	1	3	2	5	2	3	...	...	...	5	1
Chronic Inflam. mid. ear		...	1	1	...	1	...	...	...	1	...
DISEASE OF EYE.											
Wound cornea		2	...	2	...	1	...	...	...	1	1
DISEASES OF THE NOSE.											
Epistaxis.....		2	...	2	2	...	...	...	...	2	...
Scrofulous inflammation		...	1	1	...	1	...	...	...	1	...
DISEASES OF THE ARTERIES.											
Aneurism	1	...	1	1	...	1	...	...	1	2	...
DISEASES OF THE VEINS.											
Phlebitis		1	...	1	...	...	...	...	...	...	1
Adhesive.....	1	1	1	2	...	2	...	...	...	2	1
Suppurative.....		...	2	2	1	1	...	...	...	2	...
<i>Carried forward</i>	11	93	55	148	38	71	6	4	26	145	14

SURGICAL DISEASES.—*Continued.*

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 30, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	11	93	55	148	38	71	6	4	26	145	14
Varicose veins		2	...	2	...	2	...	...	...	2	...
Nævus		2	2	4	2	2	...	...	...	4	...
Hæmorrhage from		1	...	1	...	1	...	...	...	1	...
DISEASES OF THE ABSORBENTS.											
Inflammation of glands		1	1	2	...	2	...	...	...	2	...
Suppuration of glands	1	...	...	...	1	...	...	...	...	1	...
Scrofulous Disease of glands		3	2	5	1	4	...	...	...	5	...
Parotiditis		...	1	1	1	...	...	...	...	1	...
DISEASES OF DUCTLESS GLANDS.											
Bronchocele		1	1	2	...	1	...	...	1	2	...
DISEASES OF THE LARYNX.											
Membranous croup	1	3	5	8	6	...	...	...	3	9	...
Tumor of the glottis		...	1	1	...	...	1	...	...	1	...
DISEASES OF LIPS AND MOUTH.											
Hare-lip		1	2	3	2	1	...	...	...	3	...
Chancre of lip		1	...	1	...	1	...	...	...	1	...
DISEASES OF THE JAWS.											
Necrosis	1	3	...	3	2	...	2	...	...	4	...
Abscess		...	1	1	...	1	...	...	...	1	...
DISEASES OF THE GUMS.											
Epulis		1	...	1	1	...	...	...	...	1	...
DISEASES OF THE TONGUE.											
Cancer		2	...	2	...	1	1	...	...	2	...
DISEASES OF THE FAUCES.											
Tonsillitis		3	2	5	1	3	...	...	...	4	1
Cancer of tonsil		1	...	1	...	...	1	...	...	1	...
Cleft palate	1	...	...	...	...	1	...	...	...	1	...
Sinus palate		...	1	1	...	1	...	...	...	1	...
DISEASES OF THE PHARYNX AND SALIVARY GLANDS.											
Abscess		...	2	2	...	...	...	...	1	1	1
<i>Carried forward</i>	15	118	76	194	55	92	11	4	31	193	16

SURGICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 30, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	15	118	76	194	55	92	11	4	31	193	16
Salivary fistula		1	....	1	....	....	....	1	....	1	....
DISEASES OF THE ŒSOPHAGUS.											
Cancer.....		....	1	1	....	1	....	....	....	1	....
DISEASES OF THE INTESTINES.											
Hernia		3	....	3	....	3	....	....	....	3	....
Inguinal		1	....	1	....	1	....	....	....	1	....
Strangulated.....	1	1	2	3	1	....	....	....	2	3	1
Inflamed		2	1	3	....	2	....	1	....	3	....
Reducible		8	....	8	2	4	1	1	....	8	....
Irreducible.....		3	1	4	....	3	....	1	....	4	....
Umbilical .....		....	3	3	1	....	....	1	1	3	....
Ventral		1	....	1	....	1	....	....	....	1	....
Perityphlitis		2	....	2	1	1	....	....	....	2	....
DISEASES OF THE RECTUM.											
Ulceration		1	4	5	....	4	....	....	1	5	....
Fistula in ano	2	14	4	18	7	11	....	1	....	19	1
Hæmorrhoids		3	1	4	3	....	....	....	....	3	1
Internal.....		9	1	10	2	6	2	....	....	10	....
External	1	1	....	1	1	1	....	....	....	2	....
Ischio-rectal abscess.....		8	3	11	2	8	....	....	....	10	1
Hæmorrhage from rectum	1	....	....	....	....	1	....	....	....	1	....
Fissure of the anus.....		2	1	3	1	2	....	....	....	3	....
Prolapsus		4	1	5	....	4	....	1	....	5	....
Stricture		1	3	4	1	2	....	....	....	3	1
Cancer.....		1	1	2	1	1	....	....	....	2	....
DISEASE OF URINARY SYSTEM.											
DISEASE OF KIDNEY.											
Abscess (Perinephritic).....		2	....	2	....	1	....	1	....	2	....
Hæmaturia.....		1	....	1	....	....	....	....	1	1	....
DISEASES OF THE BLADDER.											
Cystitis	1	15	2	17	1	15	1	....	1	18	....
Extroversion .....		....	1	1	....	1	....	....	....	1	....
<i>Carried forward</i>	21	202	106	308	79	165	15	12	37	308	21

SURGICAL DISEASES.—*Continued.*

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 30, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	21	202	106	308	79	165	15	12	37	308	21
Incontinence of urine		1	....	1	....	1	....	....	....	1	....
Retention of urine	1	2	....	2	....	3	....	....	....	3	....
DISEASES OF THE PROSTATE GLAND.											
Chronic enlargement		6	....	6	....	5	....	....	1	6	....
GONORRHOEA AND ITS COMPLICATIONS.											
Gonorrhœa	1	1	....	1	....	2	....	....	....	2	....
Phimosis		5	....	5	2	2	....	1	....	5	....
Paraphimosis.....		1	....	1	....	1	....	....	....	1	....
Bubo.....	1	5	....	5	3	3	....	....	....	6	....
Epididymitis		10	....	10	3	7	....	....	....	10	....
Non-gonorrhœa bubo.....		2	2	4	2	2	....	....	....	4	....
Gonorrhœa rheumatism		1	....	1	1	....	....	....	....	1	....
DISEASES OF THE MALE URETHRA.											
Stricture		3	....	3	....	3	....	....	....	3	....
Organic	1	20	....	20	4	15	....	....	1	20	1
Spasmodic		1	....	1	....	1	....	....	....	1	....
Gleet		1	....	1	....	1	....	....	....	1	....
Urethritis		1	....	1	....	....	....	....	....	....	1
Urinary fistula		2	....	2	....	2	....	....	....	2	....
Extravasation of urine		3	....	3	....	1	....	....	2	3	....
DISEASES OF THE SCROTUM.											
Œdema		1	....	1	....	1	....	....	....	1	....
Abscess		2	....	2	1	1	....	....	....	2	....
Epithelial cancer		1	....	1	....	....	....	1	....	1	....
Gangrene		2	....	2	....	2	....	....	....	2	....
Lac wound.....		1	....	1	....	1	....	....	....	1	....
Tumor		1	....	1	....	1	....	....	....	1	....
DISEASES OF THE CORD.											
Hydrocele:—											
Encysted.....		3	....	3	1	1	....	....	....	2	1
<i>Carried forward</i>	25	78	108	386	96	221	15	14	41	387	24

SURGICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 30, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	25	278	108	386	96	221	15	14	41	387	24
V aricocele .....	....	3	....	3	1	2	....	....	....	3	....
DISEASES OF THE TUNICA VAGINALIS.											
Hydrocele	1	6	....	6	3	3	....	....	1	7	....
Hæmatocele.....	....	1	....	1	....	1	....	....	....	1	....
DISEASES OF THE TESTICLE.											
Orchitis:—											
Acute .....	....	5	....	5	2	3	....	....	....	5	....
Chronic.....	....	4	....	4	1	3	....	....	....	4	....
Epididymitis	1	2	....	2	1	2	....	....	....	3	....
Cancer .....	....	1	....	1	1	....	....	....	....	1	....
Retained .....	....	1	....	1	....	1	....	....	....	1	....
Tubercular.....	....	2	....	2	....	1	1	....	....	2	....
Abscess.....	....	1	....	1	....	1	....	....	....	1	....
DISEASES OF PENIS.											
Phimosis.....	1	4	....	4	....	3	....	2	....	5	....
Paraphimosis	1	1	....	1	1	1	....	....	....	2	....
Cancer .....	....	2	....	2	....	1	....	....	1	2	....
Hæmorrhage chancre .....	....	1	....	1	....	1	....	....	....	1	....
Gangrene .....	....	1	....	1	1	....	....	....	....	1	....
DISEASES OF FEMALE ORGANS OF GENERATION.											
DISEASES OF OVARY.											
Fibrous tumor.....	....	....	1	1	....	....	....	1	....	1	....
Complex cystic tumor .....	....	....	2	2	....	....	1	....	1	2	....
DISEASES OF BROAD LIGAMENT.											
Pelvic cellulitis.....	....	....	1	1	....	1	....	....	....	1	....
DISEASES OF THE WOMB.											
Cancer.....	....	....	2	2	....	1	1	....	....	2	....
DISEASES OF THE VULVA.											
Inflammation of labia.....	1	....	....	....	1	....	....	....	....	1	....
Abscess.....	....	....	1	1	....	1	....	....	....	1	....
Condyloma.....	1	....	2	2	1	1	....	....	1	3	....
<i>Carried forward</i>	31	313	117	430	109	248	18	17	45	437	24

SURGICAL DISEASES.— *Continued.*

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 30, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	31	313	117	430	109	248	18	17	45	437	24
DISEASES OF THE FEMALE BREAST.											
Inflammation:—											
Acute			1	1	1					1	
Chronic			1	1	1					1	
Abscess			3	3	1	1			1	3	
Lacteal fistula.....			1	1	1					1	
Cancer	3		11	11	2	10	1		1	14	
Scirrhus			7	7	6	1				7	
Medullary.....			1	1		1				1	
Non-malignant tumors			1	1	1					1	
DISEASES OF BONES.											
Ostitis		4	1	5		1				1	4
Periostitis.....		3	5	8	2	2		1	1	6	2
Osteo-myelitis.....		1		1		1				1	
Caries		4	1	5		4				4	1
Necrosis	2	26	5	31	10	12	2	4	3	31	2
Myeloid tumor.....		1	1	2	1	1				2	
Osseous tumor		1		1		1				1	
Rachitic curvature.....			1	1	1					1	
Cysts:—											
Osteo-sarcoma		2		2				2		2	
Exostosis			1	1	1					1	
DISEASES OF JOINTS.											
Synovitis:—											
Acute	2	25	6	31	9	22		1		32	1
Chronic	2	11	3	14	5	8	1		1	15	1
Pulpy degeneration	1	4	2	6	1	5	1			7	
Scrofulous disease.....		1	1	2	1	1				2	
Morbus coxæ	9	9	10	19	2	16	2		4	24	4
Arthritis		2		2	1	1				2	
Gonorrhœal arthritis		1		1							1
Abscess.....		1		1					1	1	
Ankylosis.....		1	2	3		2	1			3	
<i>Carried forward</i>	50	410	182	592	156	338	26	25	57	602	40

SURGICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 30, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	50	410	182	592	156	338	26	25	57	602	40
Loose cartilage.....	....	1	....	1	....	1	....	....	....	1	....
Relaxation of ligaments .....	....	....	1	1	....	1	....	....	....	1	....
DISEASES OF THE SPINE.											
Caries and necrosis	1	5	1	6	....	5	1	....	....	6	1
Angular curvature .....	....	1	....	1	....	1	....	....	....	1	....
DISEASES OF TENDONS.											
Inflammation:—											
Thecal abscess .....	....	....	1	1	1	....	....	....	....	1	....
Contraction	1	....	....	....	....	1	....	....	....	1	....
Synovitis.....	....	....	1	1	....	1	....	....	....	1	....
Club-foot:—											
Talipes varus.....	....	1	....	1	....	....	....	....	....	....	1
DISEASES OF THE APPENDAGES OF THE MUSCULAR SYSTEM.											
Enlarged bursa.....	....	1	....	1	....	1	....	....	....	1	....
Bunion .....	....	1	....	1	....	1	....	....	....	1	....
Ganglion.....	....	....	2	2	....	1	....	....	....	1	1
Bursitis	1	4	4	8	4	3	....	....	....	7	2
Hygroma .....	....	3	3	6	5	1	....	....	....	6	....
DISEASES OF THE CELLULAR TISSUE.											
Cellulitis	7	40	9	49	16	31	....	....	4	51	5
Abscess.....	1	49	20	69	16	40	3	....	4	63	7
Sinus .....	....	1	2	3	1	1	....	1	....	3	....
Carbuncle.....	....	1	....	1	....	1	....	....	....	1	....
DISEASES OF CUTANEOUS SYSTEM.											
Erythema .....	....	6	....	6	2	3	....	....	....	5	1
Eczema	1	8	5	13	1	13	....	....	....	14	....
Frostbite.....	....	4	....	4	2	2	....	....	....	4	....
Ulcer	5	28	17	45	12	36	....	....	1	49	1
Boil.....	....	1	....	1	....	1	....	....	....	1	....
Carbuncle.....	....	6	....	6	5	1	....	....	....	6	....
Felon	1	3	3	6	2	5	....	....	....	7	....
<i>Carried forward</i>	68	574	251	825	223	489	30	26	66	834	59

SURGICAL DISEASES.—Continued.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 30, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	68	574	251	825	223	489	30	26	66	834	59
Gangrene.....	....	1	....	1	1	....	....	....	....	1	....
Senile gangrene.....	....	1	1	2	....	2	....	....	....	2	....
Ch. pemphigus.....	....	1	1	2	1	....	....	....	....	1	1
Bed-sores.....	....	....	1	1	1	....	....	....	....	1	....
Psoriasis.....	1	....	....	....	....	....	....	....	....	1	....
Wen.....	....	1	2	3	2	1	....	....	....	3	....
Molluscum.....	....	1	....	1	1	1	....	....	....	1	....
Ingrown toe-nail.....	....	....	2	2	2	....	....	....	....	2	....
Cicatrices.....	....	2	2	4	1	3	....	....	....	4	....
Hypertrophy nail.....	....	....	1	1	....	....	....	....	....	....	1
INJURIES.											
Burns.....	3	29	23	52	22	19	....	....	9	50	5
Multiple injuries.....	1	4	....	4	....	1	....	....	4	5	....
Asphyxia.....	....	3	1	4	1	2	....	....	1	4	....
Contusions.....	....	20	1	21	3	17	....	....	1	21	....
Gunshot wound.....	....	23	1	24	8	13	....	....	3	24	....
Explosion.....	....	5	....	5	1	3	....	....	....	4	1
LOCAL INJURIES.											
Of the head:—											
Contusion.....	....	4	....	4	1	3	....	....	....	4	....
Scalp-wound; bone exposed.....	1	9	1	10	1	9	....	....	....	10	1
“ bone not exposed.....	....	25	10	35	11	21	....	....	2	34	1
Concussion of the brain.....	....	14	2	16	1	10	....	....	5	16	....
Fracture, simple, without depression.	1	1	....	1	....	....	....	....	2	2	....
“ “ with depression.....	....	1	....	1	....	....	....	....	1	1	....
“ compound, without depression.....	....	6	....	6	1	1	....	....	4	6	....
“ “ with depression.....	....	4	....	4	....	3	....	....	....	3	....
Fracture of the base of the skull.....	....	11	2	13	1	....	....	....	12	13	....
Laceration of brain, without fracture.....	....	1	....	1	....	....	....	....	1	1	....
INJURIES OF THE FACE.											
Contusion.....	....	1	....	1	....	1	....	....	....	1	....
Wound.....	....	9	4	13	4	9	....	....	....	13	....
<i>Carried forward</i>	75	751	306	1057	287	608	20	26	111	1062	70

SURGICAL DISEASES. — *Continued.*

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	75	751	306	1057	287	608	30	26	111	1062	70
Fracture of the facial bones.....		12	1	13	2	10	.....	.....	1	13	.....
" lower jaw.....	2	6	2	8	1	8	.....	.....	.....	9	1
INJURIES OF THE NECK.											
Contusion of soft parts.....		2	.....	2	.....	2	.....	.....	.....	2	.....
Wound, cut throat	1	5	3	8	2	6	.....	...	1	9	.....
Foreign bodies in the air-passages.....		1	.....	1	.....	.....	.....	.....	1	1	.....
Lac. wound of laryngeal cartilage.....		2	1	3	...	2	.....	1	.....	3	.....
Wound, tongue .....		.....	1	1	.....	.....	.....	.....	1	1	.....
INJURIES OF THE CHEST.											
Contusion		7	1	8	4	4	.....	.....	.....	8	.....
Fracture of ribs.....		11	7	18	3	14	.....	.....	.....	17	1
" " with injury of lung..		3	.....	3	.....	2	.....	.....	1	3	.....
" the sternum.....		1	.....	1	1	.....	.....	.....	.....	1	.....
Perforating wound of the chest.....		3	.....	3	1	.....	.....	.....	2	3	.....
INJURIES OF THE BACK.											
Contusion		18	8	26	5	19	.....	.....	1	25	1
Sprain		3	.....	3	.....	2	.....	.....	.....	2	1
Wound		4	.....	4	3	1	.....	.....	.....	4	.....
Concussion of spine		1	.....	1	.....	.....	.....	.....	1	1	.....
Fracture of spine		11	.....	11	1	5	.....	.....	4	10	1
INJURIES OF THE ABDOMEN.											
Contusion		1	3	4	3	1	.....	.....	.....	4	.....
" with rupture of viscera...		1	1	2	.....	.....	.....	.....	2	2	.....
Penetrating wound of parietes.....		.....	3	3	1	2	.....	.....	.....	3	.....
INJURIES OF THE PELVIS.											
Rupture of perineum.....		.....	5	5	1	4	.....	.....	.....	5	.....
" urethra	1	.....	.....	.....	.....	1	.....	.....	.....	1	.....
Laceration cervix.....		.....	3	3	2	.....	.....	1	.....	3	.....
Iliac synchondrosis.....		1	.....	1	.....	1	.....	.....	.....	1	.....
Fracture of pelvis		3	2	5	1	4	.....	.....	.....	5	.....
<i>Carried forward</i>	79	847	347	1194	317	689	30	28	126	1198	75

SURGICAL DISEASES.—*Continued.*

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	79	847	347	1194	319	687	30	28	126	1198	75
INJURIES OF THE UPPER EXTREMITIES.											
Contusion	2	9	....	9	2	9	....	....	....	11	....
Sprain .....	....	2	....	2	....	2	....	....	....	2	....
Wound	1	10	2	12	5	7	....	....	1	13	....
Lacerated wound of hand	4	35	2	37	23	13	....	....	3	39	2
Wound of joint .....	....	1	....	1	....	1	....	....	....	1	....
Injury to vessels .....	....	2	....	2	....	1	....	....	1	2	....
Separation of epiphysis .....	....	1	1	2	....	2	....	....	....	2	....
Greenstick fracture .....	....	1	....	1	....	1	....	....	....	1	....
Fracture of the clavicle.....	....	7	1	8	....	8	....	....	....	8	....
“ “ scapula.....	....	4	1	5	2	3	....	....	....	5	....
“ “ humerus	2	21	14	35	9	25	2	....	....	36	1
“ “ “ comp.....	....	4	1	5	2	3	....	....	....	5	....
“ “ fore-arm.....	....	7	3	10	2	8	....	....	....	10	....
“ “ “ comp.....	....	6	2	8	1	5	....	....	1	7	1
Colles' fracture .....	....	10	10	20	4	16	....	....	....	20	....
Fracture olecranon.....	....	....	1	1	1	....	....	....	....	1	....
Metacarpus or phalanges, comp. ....	....	27	....	27	5	22	....	....	....	27	....
Dislocation of the sterno-clavicular joint .....	....	1	....	1	....	1	..	....	....	1	....
Dislocation of the shoulder.....	....	7	6	13	2	11	....	....	....	13	....
“ “ elbow.....	....	6	....	6	3	3	....	....	....	6	....
“ “ phalanges .....	....	1	....	1	....	1	....	....	....	1	....
INJURIES OF THE LOWER EXTREMI- TIES.											
Contusion	1	30	8	38	14	24	....	1	....	39	....
Sprain.....	2	37	10	47	12	37	....	....	....	49	....
Wound	1	19	1	20	11	10	....	....	....	21	....
Lacerated wound of foot.....	1	10	1	11	5	5	....	....	1	11	1
Wound of joint.....	....	4	....	4	2	1	....	....	1	4	....
Injuries of vessels.....	....	1	....	1	1	....	....	....	....	1	....
Foreign bodies imbedded.....	....	1	....	1	1	....	....	....	....	1	....
Fracture of the femur	5	24	8	32	14	18	....	....	....	32	5
<i>Carried forward</i>	98	1135	419	1554	439	933	32	29	134	1567	85

SURGICAL DISEASES.—*Concluded.*

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, April 30, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	98	1135	419	1554	439	933	32	29	134	1567	85
Fracture of the femur, comp.....	1	3	....	3	1	2	....	....	1	4	....
“ “ femoris.....	4	13	12	25	....	19	1	1	4	25	4
Intracapsular fracture.....	....	1	....	1	....	1	....	....	....	1	....
Fracture of the patella.....	2	5	....	5	2	4	1	....	....	7	....
“ “ leg, both bones.....	11	50	15	65	16	53	2	....	1	72	4
“ “ “ “ “ comp..	4	15	....	15	6	8	....	....	3	17	2
Fracture of the tibia, alone	1	11	1	12	2	9	....	....	....	11	2
“ “ “ “ “ comp.	2	2	....	2	....	4	....	....	....	4	....
“ “ fibula, alone	2	30	7	37	7	28	....	....	1	36	3
Potts' fracture.....	1	18	4	22	7	14	....	....	....	21	2
Fracture of the bones of the foot .....	....	13	....	13	4	8	....	....	....	12	1
“ “ “ “ “ comp.	1	5	....	5	3	2	....	....	1	6	....
Ununited fracture.....	....	3	....	3	....	2	....	1	....	3	....
Dislocation of the semi-lunar cartilage .....	....	1	....	1	1	....	....	....	....	1	....
“ “ hip .....	....	1	....	1	1	....	....	....	....	1	....
“ “ fibula .....	....	1	....	1	1	....	....	....	....	1	....
Dislocation of the foot at the ankle, comp. ....	....	1	....	1	....	1	....	....	....	1	....
Dislocation of the metatarsus and phalanges, comp. ....	....	1	....	1	1	....	....	....	....	1	....
INJURIES NOT CLASSIFIED.											
Rupture of tendon.....	1	....	....	....	....	1	....	....	....	1	....
Rupture of ligament.....	....	1	....	1	....	1	....	....	....	1	....
Traumatic peritonitis.....	....	1	....	1	....	....	....	....	1	1	....
Ulceration of stump.....	1	2	....	2	2	1	....	....	....	3	....
No disease	1	3	11	14	6	2	1	6	....	15	....
No diagnosis.....	....	....	2	2	....	....	1	1	....	2	....
Medical cases .....	....	4	7	11	3	3	....	2	2	10	1
Totals	130	1320	478	1798	502	1096	38	40	148	1824	104

SURGICAL OPERATIONS.

OPERATIONS.	M.	F.	T.	REMARKS.
Abscess, incised.....	55	12	67	Well 13; relieved, 42; not relieved, 2; died, 5 (exhaustion); in hospital, 5.
Ischio-rectal, incised	8	2	10	Well, 2; relieved, 6; in hospital, 2.
Perinephritic abscess, incised.	1	....	1	Relieved, 1.
Abscess of joint, incised.....	4	1	5	Well, 2; relieved, 2; died, 1 (dilatation of stomach).
“ “ aspirated ...	3	2	5	Well, 2; relieved, 2; died, 1 (pyæmia).
“ of tunica vaginalis ...	1	....	1	Well, 1.
“ of lids, incised	1	....	1	Relieved, 1.
Amputations —				
Of fingers	36	3	39	Well, 11; relieved, 26; died, 1 (pyæmia); in hospital, 1.
Of leg.....	7	1	8	Well, 5; relieved, 2; died, 1 (exhaustion).
Re-amputation of leg	1	....	1	Relieved, 1.
Amputation of thigh.....	9	....	9	Well, 2; relieved, 4; died 1 (shock); in hospital, 2.
“ foot	2	....	2	Relieved, 1; died, 1 (tetanus).
“ toes... ,.....	8	2	10	Well, 4; relieved, 4; in hospital, 2.
“ arm.....	4	1	5	Well, 2; relieved, 1; died, 1 (pyæmia), 1 (exhaustion).
“ shoulder	3	....	3	Well, 3.
“ penis	2	....	2	Relieved, 1; died, 1 (pyæmia).
Ankylosis, broken up.....	3	1	4	Relieved, 4.
Bunion, incised	1	....	1	Relieved, 1.
Bursa, incised.....	5	5	10	Well, 5; relieved, 5.
“ aspirated	3	....	3	Relieved, 2; in hospital, 1.
“ injected with iodine...	1	....	1	Well, 1.
Bubo, incised	6	1	7	Well, 6; relieved, 1.
Carbuncle, incised.....	7	....	7	Well, 3; relieved, 2; in hospital, 2.
Cellulitis, incised.....	22	1	23	Well, 7; relieved, 12; died, 1 (pyæmia); in hospital, 3.
Circumcision	10	....	10	Well, 7; relieved, 3.
Dislocation of shoulder reduced	9	3	12	Well, 2; relieved, 10.
Dislocation of hip reduced..	1	....	1	Well, 1.
Dislocation of elbow reduced	4	....	4	Well, 3; relieved, 1.
Carried forward.....	217	35	252	

SURGICAL OPERATIONS. — *Continued.*

OPERATIONS.	M.	F.	T.	REMARKS.
<i>Brought forward</i>	217	35	252	
Erysipelas, incised	2	3	5	Well, 1; relieved, 3; in hospital, 1.
Elevation of depressed fracture of skull	1	....	1	Died, 1 (meningitis).
Extravasation of urine (Cock's operation)	1	....	1	Died, 1 (uræmia).
Extroversion of bladder (Wood's operation).....	....	1	1	Relieved, 1.
Excisions —				
Of elbow.....	....	1	1	Relieved, 1.
Of upper jaw.....	....	1	1	In hospital, 1.
Of metacarpus.....	1	....	1	Relieved, 1.
Of metatarsus.....	2	1	3	Well, 1; relieved, 2.
Exostosis removed.....	....	1	1	Relieved, 1.
Exploratory incisions.....	2	....	2	Well, 1; in hospital, 1.
Fissure of anus.....	3	....	3	Well, 1; relieved, 2.
Fistula ano.....	12	3	15	Well, 7; relieved, 8.
Fistula urinæ	1	....	1	Relieved, 1.
Felon, incised	2	3	5	Well, 2; relieved, 2; died, 1 (pyæmia).
Foreign bodies, removed	1	....	1	Well, 1.
Fracture of skull, incision....	1	....	1	Died, 1 (shock).
Gunshot wounds, ball removed	2	....	2	Relieved, 1; died, 1 (tetanus).
Ganglion, incised.....	....	1	1	In hospital, 1.
Hæmatoma, incised	2	1	3	Well, 1; relieved; 1; died, 1 (pyæmia).
Hæmorrhoids, ligatured.....	5	2	7	Well, 2; relieved, 5.
Hæmorrhoids, by cautery....	4	....	4	Well, 3; relieved, 1.
Hernia —				
Taxis . . . . .	....	1	1	Died, 1 (hæmorrhage into pancreas).
Herniotomy	1	3	4	Well, 1; relieved, 1; died, 1 (rupture, intestines); in hospital, 1.
Heaton's operation.....	12	....	12	Well, 2; relieved, 10.
Hydrocele —				
Tapped	1	....	1	Relieved, 1.
Injected.....	7	....	7	Well, 5; relieved, 2.
Hæmatocele, incised.....	1	....	1	Relieved, 1.
Mastoid cells, incised.....	3	....	3	Well, 1; relieved, 2.
Caries petrous bone, trephined	1	....	1	Died, 1 (abscess of brain).
<i>Carried forward</i>	285	57	342	

SURGICAL OPERATIONS.—*Continued.*

OPERATIONS.	M.	F.	T.	REMARKS.
<i>Brought forward</i>	285	57	342	
Ingrown toe-nail removed....	....	1	1	Well, 1.
Lacerated cervix.....	....	2	2	Well, 1; relieved, 1.
Lacerated perineum.....	....	1	1	Relieved, 1.
Ligature of brachial artery...	2	....	2	Relieved, 1; died, 1.
Lupus, excised.....	....	1	1	Relieved, 1.
Necrosis, incisions.....	4	....	4	Well, 2; relieved, 1; died, 1 (pyæmia).
Sequestrotomy.....	11	3	14	Well, 4; relieved, 8; in hospital, 2.
Nerve-stretching sciatic.....	1	....	1	Well, 1.
Neurectomy.....	....	1	1	Relieved, 1.
Nævus, excised.....	1	1	2	Relieved, 1; well, 1.
Ovariectomy.....	....	1	1	Died, 1 (peritonitis).
Periostitis, incised.....	2	....	2	Relieved, 1; died, 1 (exhaustion).
Perineorrhaphy.....	....	2	2	Well, 1; relieved, 1.
Phimosis.....	3	....	3	Well, 2; relieved, 1.
Paraphimosis.....	1	....	1	Well, 1.
Operation upon sinus of palate....	....	1	1	Relieved, 1.
Hare lip.....	1	2	3	Well, 2; relieved, 1.
Refracture.....	2	1	3	Well, 1; relieved, 2.
Retention of urine:—				
Aspiration.....	1	....	1	Died, 1 (peritonitis).
Cock's operation.....	2	....	2	Relieved 1; died, 1 (exhaustion).
Resection of humerus.....	1	....	1	Relieved, 1.
Resection of tibia.....	....	1	1	Well, 1.
Sinus split up.....	1	4	5	Relieved, 4; died, 1 (exhaustion).
Sinus explored.....	....	2	2	Relieved, 2.
Stricture œsophagus dilated..	....	1	1	Relieved, 1.
Stricture of rectum dilated..	....	2	2	Relieved, 2.
Stricture of urethra:—				
Dilated.....	15	....	15	Well, 2; relieved, 11; died, 1 (exhaustion); in hospital, 1.
Divulsed.....	2	....	2	Relieved, 2.
External urethrotomy.....	1	....	1	Died, 1 (shock).
Otis' operation.....	4	....	4	Well, 3; relieved, 1.
Synovitis, aspirated.....	1	....	1	Relieved, 1.
Scrofulous disease of knee....	1	....	1	Relieved, 1.
<i>Carried forward</i>	342	84	426	

SURGICAL OPERATIONS.—*Concluded.*

OPERATIONS.	M.	F.	T.	REMARKS.
<i>Brought forward</i>	342	84	426	
Dislocation of finger.....	1	....	1	Relieved, 1.
Tenotomy:—				
For talipes	1	....	1	In hospital, 1.
hip disease .....	....	1	1	Died, 1 (exhaustion).
Testes, removed.....	5	....	5	Well, 3; relieved, 2.
Tonsils, excised.....	1	....	1	Well, 1.
Tetanus: operation on hand..	1	....	1	Died, 1 (embolism).
Tracheotomy:—				
For croup.....	4	1	5	Relieved, 3; died, 2 (exhaustion); (septicæmia) 1.
diphtheria.....	4	5	9	Well, 4; died, 5 (exhaustion) 3; (shock) 1.
Trephining: for depressed fractures	3	....	3	Relieved, 1; died, 2 (exhaustion).
Tumors, excised:—				
Tumor of scrotum.....	2	....	2	Relieved, 2.
Adenoma	4	4	8	Well, 1; relieved 4; not relieved, 1; died, 1 (pneumonia); in hospital, 1.
Carcinoma .....	....	20	20	Well, 8; relieved, 11; died 1 (exhaustion).
Condyloma	1	....	1	Well, 1.
Mucus cyst	1	1	2	Well, 1; relieved, 1.
Epithelioma	8	1	9	Well, 3; relieved, 6.
Epulis	1	....	1	Well, 1.
Sarcoma	5	1	6	Relieved, 5; died, 1 (exhaustion).
Lipoma	3	2	5	Well, 2; relieved, 1; died, 1 (erysipelas); in hospital, 1.
Polypus of ear.....	1	....	1	Relieved, 1.
Wens.....	1	3	4	Well, 2; relieved, 2.
Wound, with deformity of lip .....	....	1	1	Well, 1.
Excision of cicatrix	1	1	2	Well, 1; relieved, 1.
Artificial nose.....	....	1	1	Relieved, 1.
Amputation of hand.....	1	....	1	Relieved, 1.
Lacerated wound of hand..	....	2	2	Well, 1; relieved, 1.
Bronchocele.....	1	....	1	Died, 1 (exhaustion).
Osteo-myelites	1	....	1	Relieved, 1.
Ulcers cauterized.....	1	2	3	Relieved, 3.
Cancer	1	....	1	Well, 1.
<i>Total</i>	395	130	525	

DISEASES OF THE EYE.

Cases treated in Hospital from May 1, 1882, to May 1, 1883.

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
CONJUNCTIVA.											
Conjunctivitis, catarrhal.....			1	1	....	1	....	....	....	1	....
“ blennorrhœal.....		1	....	1	....	1	....	....	....	1	....
“ gonorrhœal.....	1	3	....	3	....	4	....	....	....	4	....
Trachoma.....		4	1	5	....	2	1	2	....	5	....
Ecchymosis.....		1	....	1	....	1	....	....	....	1	....
Burns.....		1	....	1	....	1	....	....	....	1	....
Symblepharon.....		1	....	1	....	....	1	....	....	1	....
Pterygium.....		1	....	1	1	....	....	....	....	1	....
CORNEA AND SCLEROTIC.											
Keratitis phlyctenular.....			2	2	1	....	1	....	....	2	....
Hypopion-keratitis.....	1	2	....	2	....	2	....	....	....	2	1
Ulcer.....		2	....	2	....	2	....	....	....	2	....
Opacity.....			1	1	....	1	....	....	....	1	....
Pannus.....			1	1	....	1	....	....	....	1	....
Wounds.....		1	....	1	1	....	....	....	....	1	....
Staphyloma.....		1	2	3	2	1	....	....	....	3	....
Foreign bodies.....		1	....	1	....	1	....	....	....	1	....
Kerato-Iritis.....		1	....	1	....	....	....	....	....	....	1
LENS.											
Cataract.....	1	8	9	17	11	2	3	1	....	17	1
“ traumatic.....		1	1	2	1	....	1	....	....	2	....
“ capsular.....		2	....	2	....	2	....	....	....	2	....
GLOBE.											
Foreign body in the globe.....		3	1	4	3	1	....	....	....	4	....
LIDS.											
Tumor of lid edge.....		1	....	1	1	....	....	....	....	1	....
Carried forward.....	3	35	19	54	21	23	7	3	....	54	3

DISEASES OF THE EYE. — *Concluded.*

DISEASES.	In Hospital, May 1, 1882.	ADMITTED.			DISCHARGED.						Remaining in Hospital, May 1, 1883.
		Males.	Females.	Total.	Well.	Relieved.	Not Relieved.	Not Treated.	Died.	Total.	
<i>Brought forward</i>	3	35	19	54	21	23	7	3	....	54	3
Entropion .....	....	....	1	1	....	1	....	....	....	1	....
Trichiasis .....	....	....	1	1	1	....	....	....	....	1	....
ORBIT.											
Abscess	1	....	....	....	1	....	....	....	....	1	....
Cellulitis .....	....	1	....	1	....	1	....	....	....	1	....
IRIS, CILIARY BODY AND CHOROID.											
Iritis .....	....	3	2	5	1	4	....	....	....	5	....
“ rheumatic .....	....	2	....	2	2	....	....	....	....	2	....
“ syphilitic	1	4	....	4	1	4	....	....	....	5	....
Occlusion of pupil .....	....	2	1	3	2	1	....	....	....	3	....
Glaucoma .....	....	1	....	1	....	1	....	....	....	1	....
RETINA AND OPTIC NERVE.											
Photophobia .....	....	1	....	1	....	1	....	....	....	1	....
MISCELLANEOUS.											
No disease .....	....	....	1	1	1	....	....	....	....	1	....
Total	5	49	25	74	30	36	7	3	....	76	3

OUT-PATIENT DEPARTMENT.

MEDICAL.

IN CHARGE OF DRS. FORSTER AND ROTCH.

From May 1, 1882, to April 30, 1883.

DISEASES.	Males.	Females.	Total.
GENERAL DISEASES.			
A.			
Chicken pox.....	1	.....	1
Typhoid fever.....	18	4	22
Febricula	10	5	15
Intermittent fever.....	7	3	10
Cholera infantum .....	.....	1	1
Diphtheria.....	1	1	2
Mumps	1	.....	1
Erysipelas	1	5	6
B.			
Acute rheumatism.....	9	13	22
Subacute rheumatism.....	39	33	72
Gonorrhœal rheumatism	1	.....	1
Muscular rheumatism.....	19	8	27
Chronic rheumatism.....	14	14	28
Chronic rheumatic arthritis.....	1	.....	1
Secondary .....	.....	1	1
Scrofula	4	7	11
Tubercular meningitis .....	.....	1	1
Hæmoptysis	26	10	36
Diabetes nullitus.....	1	.....	1
Purpura .....	.....	.....	.....
Hæmorrhagic.....	1	.....	1
Anæmia	7	32	39
Chlorosis .....	.....	3	3
Carried forward.....	161	141	302

MEDICAL OUT-PATIENT DEPARTMENT.— *Continued.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	161	141	302
DISEASES OF THE NERVOUS SYSTEM.			
Cerebral anemia .....	.....	1	1
Chronic hydrocephalus	1	.....	1
DISEASES OF THE NERVES.			
Paralysis	1	.....	1
Hemiplegia .....	.....	1	1
Neuro-asthenia	2	3	5
FUNCTIONAL DISEASES OF NERVOUS SYSTEM.			
Epilepsy (single fit).....	1	2	3
Convulsions.....	.....	1	1
Chorea	1	6	7
Hysteria.....	.....	6	6
Neuralgia (general).....	47	71	118
Hemicrania .....	.....	2	2
Podalgia	1	.....	1
Pleurodynia	8	4	12
Lumbago	12	4	16
Cephalalgia.....	1	6	7
Intercostal neuralgia.....	3	3	6
Myalgia	26	5	31
Hypochondriasis.....	4	.....	4
Abdominal neuralgia.....	2	.....	2
Paræsthesia.....	1	.....	1
DISEASES OF INTELLECT.			
Melancholia .....	.....	1	1
Paralysis of the insane.....	1	.....	1
Insomnia .....	.....	2	2
DISEASES OF THE CIRCULATORY SYSTEM.			
DISEASES OF THE HEART AND ITS MEMBRANES.			
Pericarditis.....	1	.....	1
Endocarditis.....	4	1	5
Aortic	7	9	16
<i>Carried forward</i>	285	269	554

MEDICAL OUT-PATIENT DEPARTMENT.— *Continued.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	285	269	554
Mitral	28	19	47
Aortic and mitral	3	1	4
Functional.....	10	7	17
Hypertrophy	7	.....	7
Dilatation	7	.....	7
Cardiac: variety undetermined.....	9	7	16
DISEASE OF NOSTRILS.			
Nasal catarrh.....	1	.....	1
DISEASES* OF LARYNX.			
Laryngitis	9	3	12
DISEASES OF TRACHEA AND BRONCHI.			
Bronchial catarrh	14	18	32
Bronchitis	70	35	105
Acute	14	20	34
Chronic.....	28	9	37
Asthma.....	16	8	24
Trachitis .....	.....	1	1
DISEASES OF THE LUNG.			
Pneumonia	10	4	14
Convalescent pneumonia	1	2	3
Pulmonary apoplexy	1	.....	1
Incipient pneumonic phthisis.....	13	11	24
Chronic pneumonic phthisis.....	115	58	173
DISEASES OF THE PLEURA.			
Pleurisy	9	3	12
Chronic pleurisy.....	2	.....	2
DISEASES OF THE DIGESTIVE SYSTEM.			
Stomatitis	3	1	4
DISEASES OF THE TEETH, GUMS, ETC.			
Teething .....	.....	1	1
DISEASES OF THE FAUCES AND PALATE.			
Tonsillitis	10	11	21
<i>Carried forward</i>	665	488	1,153

MEDICAL OUT-PATIENT DEPARTMENT. — *Continued.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	665	488	1,153
DISEASES OF THE PHARYNX.			
Pharyngitis.....	17	8	25
DISEASES OF THE STOMACH.			
Gastritis.....	1	.....	1
Chronic ulcer.....	.....	1	1
Dyspepsia and indigestion.....	128	149	277
Gastrodynia.....	2	1	3
Carcinoma.....	.....	1	1
Gastro-duodenitis.....	7	2	9
Gastric catarrh.....	3	5	8
Anorexia and vomiting.....	5	7	12
DISEASES OF THE INTESTINES.			
Rectal catarrh.....	.....	1	1
Diarrhœa.....	19	30	49
Hæmorrhage.....	.....	1	1
Constipation.....	56	126	182
Enteritis, catarrhal.....	3	4	7
DISEASES OF THE LIVER.			
Simple enlargement.....	1	.....	1
Cirrhosis.....	1	.....	1
Gall-stones.....	.....	1	1
DISEASES OF THE SPLEEN.			
Enlarged spleen.....	1	.....	1
DISEASES OF URINARY SYSTEM.			
DISEASE OF KIDNEY.			
Bright's kidney.....	4	5	9
Chronic.....	1	.....	1
Hæmaturia.....	1	.....	1
Suppression of urine.....	.....	1	1
DISEASES OF THE BLADDER.			
Cystitis.....	3	2	5
Dysuria.....	1	1	2
<i>Carried forward</i>	919	834	1,753

MEDICAL OUT-PATIENT DEPARTMENT. — *Continued.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	919	834	1,753
Incontinence of urine.....	6	5	11
Spermatorrhœa.....	1	.....	1
DISEASES OF THE WOMB.			
Catarrh (leucorrhœa).....	.....	3	3
Hyperplasia.....	.....	1	1
Inflammation.....	.....	1	1
Non-malignant tumors.....	.....	2	2
Displacements.....	.....	1	1
FUNCTIONAL DISEASES OF WOMEN.			
Amenorrhœa.....	.....	7	7
Scanty menstruation.....	.....	2	2
Dysmenorrhœa.....	.....	3	3
Menorrhagia.....	.....	2	2
Pregnancy.....	.....	10	10
DISEASES OF PREGNANCY.			
Vomiting of pregnancy.....	.....	1	1
DISEASES OF CUTANEOUS SYSTEM.			
Papulatum.....	.....	1	1
Urticaria.....	1	5	6
Zoster.....	1	1	2
Ecthyma.....	.....	1	1
Acne.....	1	.....	1
Alopecia areata.....	.....	1	1
POISONS.			
METALS AND THEIR SALTS.			
Lead.....	5	.....	5
Colic.....	2	.....	2
VEGETABLE POISONS.			
Abuse of alcohol (alcoholismus).....	36	1	37
Ivy (Rhus tox).....	2	.....	2
Tobacco, abuse of.....	33	.....	33
Tea, abuse of.....	11	13	24
<i>Carried forward</i>	1,018	895	1,913

MEDICAL OUT-PATIENT DEPARTMENT.—*Continued.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	1,018	895	1,913
UNCLASSIFIED.			
Debility	103	144	247
Diagnosis undetermined.....	13	11	24
Infancy, over lactation.....	.....	2	2
Inanition .....	.....	1	1
Ophthalmia, amaurosis	1	.....	1
Otorrhœa, goitre.....	.....	1	1
Surgical	2	1	3
Epistaxis .....	.....	1	1
Varicose veins	1	4	5
Gonorrhœa, hæmorrhoids	3	.....	3
Perostitis .....	.....	2	2
No treatment	15	9	24
Unsuitable.....	1	2	3
Transferred for surgical treatment	12	8	20
No disease.....	12	2	14
Parasitic (intestinal).....	1	.....	1
Tenia solium	6	1	7
Oxyuris vermicularis	2	2	4
Ascuris lumbricoides.....	.....	1	1
Surgical:—			
Strain of shoulder.....	1	.....	1
“ “ side	2	.....	2
“ “ abdomen.....	1	.....	1
“ “ back	1	.....	1
Sprain	2	.....	2
Lateral curvature .....	.....	1	1
Hernia.....	1	.....	1
Enlarged abdomen .....	.....	1	1
Enlarged glands .....	.....	1	1
Wen.....	1	.....	1
Inflammation around joint	1	.....	1
Referred to:—			
House.....	29	25	54
<i>Carried forward</i>	1,229	1,115	2,344

MEDICAL OUT-PATIENT DEPARTMENT. — *Concluded.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	1,229	1,015	2,344
Dentist.....	1	1	2
Department of Ear.....	2	1	3
“ “ Eye	1	1	2
“ “ Nervous disease	17	13	30
“ “ Skin disease	11	6	17
“ “ Throat disease.....	22	12	34
“ “ Woman's disease .....	.....	52	52
Boston Dispensary.....	8	5	13
Children's Hospital	3	2	5
Carney Hospital.....	1	.....	1
Massachusetts General Hospital.....	2	3	5
Totals.....	1,297	1,211	2,508

OUT-PATIENT DEPARTMENT.

SURGICAL.

IN CHARGE OF DRS. BOLLES, BRADFORD, AND POST.

From May 1, 1882, to May 1, 1883.

General Diseases —		<i>Brought forward</i>	232
Erysipelas	8	Ulcer	1
Simple	2	Bite	1
Phlegmonous	2	Foreign Bodies.....	3
Diffuse inflammation of Cellular Tissue	16	Diseases of the Veins —	
Syphilis not classified.....	13	Phlebitis	2
Primary.....	10	Varicose Veins	33
Secondary.....	6	Nævus	5
Tertiary.....	8	Diseases of the Absorbents —	
Hard Chancre	10	Inflammation of Lymphatics..	11
Soft Chancre.....	34	Suppuration of Lymphatics..	13
Bubo (hard or suppurating)	40	Inflammation of Glands.....	14
Hereditary Syphilis.....	1	Suppuration of Glands.....	19
Cancer	3	Hypertrophy of Glands	6
Scirrhus.....	2	Scrofulous Disease of Glands.	30
Epithelial.....	8	Diseases of Ductless Glands —	
Melanotic	1	Bronchocele	2
Sarcoma	1	Diseases of the Larynx —	
Tumors not classified.....	21	Laryngitis	2
Cartilaginous	1	Diseases of Lips and Mouth —	
Erectile	1	Hare-lip.....	3
Fatty	9	Stomatitis	7
Fibrous	3	Cancer (Ephithelial)	2
Papilloma	3	Abrasion	2
Simple Cysts.....	2	Diseases of the Jaws —	
Mucous	1	Myeloid Tumor	1
Lupus.....	1	Teeth	1074
Rickets	3	Alveolar Abscess.....	24
Diseases of the Nerves —		Cysts	2
Neuritis	1	Necrosis.....	8
Paralysis	9	Diseases of the Tongue —	
Functional Diseases of Nervous System —		Glossitis	1
Tetanus	1	Ulcer	4
Hysteria	4	Wound	1
Neuralgia	12	Tongue Tie.....	4
Irritable Stump	5	Diseases of the Fauces —	
Chorea	1	Tonsilitis	8
Sciatica	1	Enlarged Tonsils.....	4
Delirium Tremens.....	1	Cleft Palate.....	1
Diseases of the Nose —		<i>Carried forward</i>	1,520
Epistaxis	3		
Polypus Nasi	2		
<i>Carried forward</i>	232		

<i>Brought forward</i>	1,520
Diseases of the Pharynx and Salivary Glands —	
Sloughing	3
Salivary Fistula.....	1
Pharyngitis	4
Parotiditis	4
Diseases of the Œsophagus —	
Stricture	1
Foreign Body Swallowed.....	2
Diseases of the Intestines —	
Hernia	12
Inguinal.....	42
Reducible	1
Femoral.....	1
Umbilical	6
Diseases of the Rectum —	
Fistula in Ano	27
Hæmorrhoids	18
Internal	18
External	4
Seat Worms	1
Ischio-rectal Abscess	6
Fissure of the Anus	3
Prolapsus.....	2
Diseases of the Bladder —	
Cystitis	15
Calculus	1
Frequent Micturition	2
Irritability.....	1
Incontinence of Urine.....	4
Retention of Urine	10
Diseases of the Prostate Gland —	
Chronic Enlargement.....	7
Gonorrhœa and its Complications —	
Rheumatism	2
Gonorrhœa	93
Balanitis	14
Phimosis	6
Paraphimosis	6
Epididymitis.....	31
Diseases of the Male Urethra —	
Stricture	32
Urinary Fistula	1
Diseases of the Scrotum —	
Abscess	1
Wound.....	1
Diseases of the Cord —	
Hydrocele	10
Varicocele.....	7
<i>Carried forward</i>	1,938

<i>Brought forward</i>	1,938
Diseases of the Tunica Vaginalis —	
Hydrocele	34
Diseases of the Testicle —	
Orchitis	20
Epididymitis.....	23
Spermatorrhœa	3
Hernia Testis.....	1
Neuralgia	1
Scrofulous Disease	4
Retained Testicle	1
Contusion	2
Vagrant Testicle.....	1
Castration	1
Diseases of Penis —	
Phimosis	2
Paraphimosis	3
Hypospadias	2
Diseases of Female Organs of Generation —	
Diseases of Ovary —	
Tumor	1
Diseases of the Womb —	
Fibrous Tumors.....	1
Prolapsus Uteri.....	1
Contracted Cervix.....	1
Lacerated Cervix.....	1
Diseases of the Female Breast —	
Acute Inflammation	1
Abscess	4
Lacteal Fistula.....	1
Scirrhus.....	4
Non-malignant Tumors	5
Diseases of Bones —	
Ostitis	4
Periostitis	13
Caries	10
Necrosis	28
Osseous Tumor	1
Rachitis	2
Dactylitis	1
Exostosis.....	5
Diseases of Joints —	
Synovitis.....	21
Acute.....	11
Chronic	31
Scrofulous Disease.....	5
Morbus Coxæ.....	26
Rheum. Arthritis	18
Abscess	1
Ankylosis	7
Relaxation of Ligaments.....	2
Dislocation of Semilun. Cart..	1
<i>Carried forward</i>	2,243

<i>Brought forward</i>	2,243	<i>Brought forward</i>	3,197
Diseases of the Spine —		Dog Bite.....	14
Caries and Necrosis	4	Contusions	14
Psoas and Lumbar Abscess ..	1	Abrasions	19
Angular Curvature	3	Wounds.....	4
Lateral Curvature.....	8	Gunshot wound	26
Diseases of Tendons —		Fractures	9
Inflammation	11	Local Injuries —	
Contraction.....	2	Contusions	11
Talipes Varus	5	Scalp-wound; bone not ex-	
Talipes Valgus.....	7	posed	52
Pes Planus	6	Fracture of the Vault of the	
Bow Leg	8	Skull	1
Wry Neck.....	1	Injuries of the Face —	
Diseases of the Appendages of		Contusion	21
the Muscular System —		Wound	84
Enlarged Bursa	7	Foreign bodies in the Nose...	1
Bunion.....	5	Foreign bodies in the Eye....	19
Ganglion	24	Foreign bodies in the soft parts	3
Bursitis	4	Fracture of the facial bones ..	5
Hygroma.....	15	Fracture of lower Jaw.....	9
Muscular Strain.....	11	Fracture of Nose.....	1
Diseases of the Cellular Tissue —		Injuries of the Neck —	
Cellulitis	40	Contusion of soft parts	5
Abscess	180	Wound, cut throat	2
Sinus	4	Foreign bodies in the Pharynx	1
Diseases of Cutaneous System —		Sinus	1
Erythema	2	Foreign bodies in the Œsoph-	
Eczema	45	agus	1
Frostbite	7	Injuries of the Chest —	
Ulcer	219	Contusion	59
Fissure	1	Fracture of Ribs	26
Boil	40	Wound of the Parietes.....	1
Carbuncle	12	Injuries of the Back —	
Onychia	4	Contusion	36
Felon	103	Sprain	38
Rodent Ulcer	1	Fracture of Spine.....	1
Urticaria	2	Injuries of the Abdomen —	
Nævus	6	Contusion	5
Wen	27	Injuries of the Upper Ex-	
Condyloma	2	tremities —	
Cheloid	1	Contusion	189
Ingrown Toe-nail.....	33	Sprain	169
Cicatrices	3	Wound.....	203
Corns	7	Lacerated Wound of Hand ..	177
Herpes	7	Arm	1
Tinea Tricophytina.....	3	Wound of Joint	2
Warts.....	12	Foreign Bodies Imbedded....	41
Psoriasis	3	Separation of Epiphyses	3
Erythema Nodosum	1	Greenstick Fracture.....	8
Dermatitis.....	3	Fracture	11
Acne	1	Fracture of the Clavicle.....	65
Paronychia	5	“ “ Scapula.....	1
Profuse Granulations	3	“ “ Humerus	39
Pediculosus.....	1	“ “ Forearm	44
Injuries —			
Burns.....	54		
<i>Carried forward</i>	3,197	<i>Carried forward</i>	4,619

<i>Brought forward</i>	4,619
Fracture of the Forearm, Comp.	2
Colles' Fracture	69
Injury to Elbow	31
Amputation from	20
Fracture Ext. Condyle	1
Fracture of the Carpus	3
Metacarpus or Phalanges ..	24
" " " Comp.	1
Dislocation of the Sternoclavi-	
cular Joint.....	1
Dislocation of the Acromio-	
clavicular Joint	2
Dislocation of the Shoulder ..	19
Dislocation of the Elbow	8
Dislocation of the Wrist and	
Carpus	1
Dislocation of the Thumb ...	7
Dislocation of the Phalanges,	7
Rupture of Tendon.....	2
Fracture of Ulna.....	4
Fracture of Olecranon.....	1
Unhealed Stump	4
Injuries of the Lower Extremi-	
ties —	
Contusion	83
Sprain	86
Wound.....	56
Lacerated Wound of Foot....	16
Foreign Bodies Imbedded....	13
Fracture of the Femur	6
" of the Patella	2
" of the Leg.....	25
" of the Leg, Comp... ..	2
" of the Tibia, alone..	5
" of the Fibula, alone.	5
" of Int. Malleolus...	1
<i>Carried forward</i>	5,126

<i>Brought forward</i>	5,126
Fracture of the Bones of the	
Foot	7
Fracture of the Ext. Malleolus,	1
Dislocation of the Hip.....	1
Dislocation of the Patella....	1
Dislocation of the Foot at the	
Ankle.....	1
Dislocation of the Metatarsus	
and Phalanges	1
Removal of Plaster Bandages,	7
Injuries and diseases not classi-	
fied —	
Rupture of Tendon.....	1
Wound of Nerve.....	2
Hæmorrhage.....	2
Malformed Toe	5
Foreign Substances in the Cel-	
lular Tissue	3
Medical Cases	80
Debility	3
Pregnancy.....	1
Nephritis.....	1
Neuralgia	3
Lumbago.....	3
No Disease	28
No Diagnosis	117
Not treated.....	65
Referred to Medical Dep't....	55
" to Woman's Dep't ..	9
" to Skin Dep't	35
" to Nervous Dep't ...	16
" to Throat Dep't	13
" to Ear Dep't	6
" to Eye Dep't.....	10
" for Admission	48
<i>Total</i>	5,651

OUT-PATIENT DEPARTMENT.

DISEASES OF THE EYE.

IN CHARGE OF DRS. WILLIAMS AND WADSWORTH.

From May 1, 1882, to May 1, 1883.

DISEASES.	Males.	Females.	Total.
CONJUNCTIVA.			
Conjunctivitis, catarrhal.....	190	299	489
“ phlyctenular.....	32	56	88
“ blennorrhœal.....	2	1	3
“ gonorrhœal.....	4	.....	4
“ diphtheritic.....	2	.....	2
“ traumatic.....	2	5	7
Blennorrhœa neonatorum.....	3	3	6
Trachoma.....	16	14	30
Ecchymosis.....	3	2	5
Burns.....	2	... ..	2
Œdema.....	2	.....	2
Symblepharon.....	2	1	3
Pinguecula.....	1	.....	1
Pterygium.....	4	1	5
Fatty tumor.....	.....	1	1
Foreign bodies.....	4	2	6
CORNEA AND SCLEROTIC.			
Keratitis.....	11	14	25
“ interstitial.....	2	3	5
“ phlyctenular.....	17	41	58
“ fascicular.....	.....	1	1
“ traumatic.....	6	1	7
Hypopion-keratitis.....	2	.....	2
Ulcer.....	31	51	82
Abscess.....	.....	1	1
Opacity.....	21	27	48
Adherent leucoma.....	1	1	2
<i>Carried forward.....</i>	360	525	885

DISEASES OF THE EYE. — *Continued.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	360	525	885
Conical cornea.....	.....	1	1
Pannus	1	1	2
Burns	2	.....	2
Wounds	14	3	17
Staphyloma.....	4	9	13
Sclero-keratitis	2	1	3
Episcleritis	35	5	40
Foreign bodies.....	11	1	12
VITREOUS.			
Floating opacities.....	2	5	7
Hæmorrhage.....	.....	1	1
Muscæ volitantes (physiological).....	1	1	2
LENS.			
Cataract	20	29	49
“ senile.....	2	1	3
“ traumatic.....	4	1	5
“ capsular.....	.....	1	1
“ posterior cortical	3	1	4
Dislocation	3	1	4
GLOBE.			
Hydrophthalmos	1	.....	1
Panophthalmitis	1	1	2
Phthisis bulbi	4	.....	4
Foreign body in the globe.....	1	.....	1
Disorganization from injury.....	.....	1	1
REFRACTION AND ACCOMMODATION.			
Myopia.....	12	14	26
Hypermetropia	11	51	62
Anisometropia.....	3	2	5
Astigmatism.....	7	11	18
Presbyopia	4	11	15
Asthenopia	5	20	25
Paresis of accommodation.....	1	.....	1
<i>Carried forward</i>	514	698	1,212

DISEASES OF THE EYE.— *Continued.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	514	698	1,212
LACHRYMAL APPARATUS.			
Blennorrhœa of sac	4	6	10
Abscess of sac	2	5	7
Fistula of sac .....	.....	1	1
Stricture of canaliculus	5	7	12
“ of nasal duct.....	1	5	6
Eversion of punctum.....	1	5	6
LIDS.			
Blepharitis.....	26	51	77
Hordeolum	9	9	18
Abscess	10	4	14
Tumor of lid edge.....	2	1	3
Epithelioma	1	1	2
Chalazion.....	9	19	28
Entropion .....	.....	1	1
Ectropion.....	2	.....	2
Trichiasis.....	3	8	11
Ecchymosis.....	.....	1	1
Oedema.....	2	4	6
Eczema.....	1	3	4
Xanthelasma	1	.....	1
Wounds	2	.....	2
Burn .....	.....	2	2
Tinea ciliaris	1	1	2
Rodent ulcer .....	.....	1	1
Nævus	1	.....	1
Ulcer .....	.....	1	1
Fungous growth .....	.....	1	1
Cyst.....	1	.....	1
Versuca	1	.....	1
ORBIT.			
Abscess.....	1	1	2
Caries .....	.....	1	1
Fungus in orbit	1	.....	1
<i>Carried forward</i>	601	837	1,438

DISEASES OF THE EYE. — *Continued.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	601	837	1,438
NERVES AND MUSCLES.			
Convergent strabismus.....	9	12	21
Divergent strabismus .....	.....	4	4
Insufficiency of the recti interni	1	11	12
Paralysis of third pair.....	.....	1	1
“ “ fourth pair	2	.....	2
“ “ sixth pair	1	.....	1
“ “ facial.....	2	.....	2
Ptosia .....	.....	1	1
Blepharospasm	2	.....	2
Nystagmus	1	2	3
Myosis .....	.....	1	1
Mydriasis.....	1	1	2
Diplopia.....	.....	1	1
IRIS, CILIARY BODY AND CHOROID.			
Iritis	18	12	30
“ traumatic	2	1	3
“ syphilitic	12	2	14
Posterior synechiæ	4	2	6
Coloboma of iris .....	.....	1	1
Irido-choroiditis .....	.....	2	2
Choroiditis	2	8	10
Sclero-choroiditis posterior.....	.....	1	1
Glaucoma.....	1	5	6
Hæmorrhage into anterior chamber	1	.....	1
Retino choroiditis	1	.....	1
RETINA AND OPTIC NERVE.			
Retinitis	3	2	5
“ ^f pigmentosa	1	1	2
Separation of retina.....	2	3	5
Neuritis .....	.....	1	1
Atrophy of optic nerve.....	9	5	14
Amblyopia.....	2	3	5
“ ex abusu	4	.....	4
<i>Carried forward</i>	682	920	1,602

DISEASES OF THE EYE.— *Concluded.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	682	920	1,602
Photophobia	1	.....	1
Hemeralopia.....	1	.....	1
Hemorrhage into retina	1	1	2
MISCELLANEOUS.			
No Disease	2	1	3
No Diagnosis	5	7	12
Refused treatment	1	1	2
Referred.....	3	... ..	3
Total	696	930	1,626

OUT-PATIENT DEPARTMENT.

DISEASES OF THE SKIN.

IN CHARGE OF DRs. WIGGLESWORTH AND TILDEN.

From May 1, 1882, to May 1, 1883.

DISEASES.	Males.	Females.	Total.
DISEASES OF THE SERACEOUS GLANDS.			
Seborrhœa	11	20	31
Comedo	4	5	9
Milium .....	.....	1	1
Sebaceous cyst (wen).....	.....	1	1
DISEASES OF SWEAT GLANDS.			
Bromidrosis	2	.....	2
INFLAMMATIONS.			
Rubeola	1	.....	1
Varicella	3	4	7
A. Erythematous—			
Erythema simplex	4	11	15
“ intertrigo.....	.....	2	2
“ multiforme	1	1	2
“ nodosum	1	.....	1
Urticaria.....	19	24	43
B. Vesicular —			
Herpes	2	1	3
“ labialis	2	1	3
“ progenitalis	2	.....	2
“ zoster	6	1	7
C. Bullous —			
Pemphigus chronicus.....	.....	1	1
Cheiro-pompholix.....	1	1	2
D. Papular —			
Lichen ruber.....	1	4	5
“ trophicus.....	1	3	4
Carried forward	61	81	142

DISEASES OF THE SKIN. — *Continued.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	61	81	142
E. Pustular —			
Acne	20	32	52
“ rosacea	4	3	7
Impetigo	10	7	17
“ contagiosa	2	2	4
Folliculitis	1	.....	1
F. Squamous —			
Psoriasis	14	41	55
G. Phlegmonous —			
Abscess	1	5	6
Furuncle	3	3	6
H. Ulceration —			
Ulcers	17	7	24
Onychia .....	.....	2	2
I. Multiform —			
Eczema, acute	18	20	38
“ chronic	85	79	164
Dermatitis	21	11	32
“ septica, erysipelas	1	2	3
HÆMORRHAGES.			
Purpura simplex	3	2	5
“ rheumatica	1	.....	1
HYPERTROPHIES.			
1. Of pigment —			
Lentigo	1	1	2
Chloasma .....	.....	3	3
Nævus pigmentosus .....	.....	1	1
2. Of Epidermis and papillæ —			
Cornu cutaneum	1	.....	1
Verruca	2	5	7
“ acuminata	2	2	4
Xerosis	2	2	4
Molluscum epitheliale (contagiosum)	1	.....	1
3. Of corium			
Scleroderma .....	.....	1	1
<i>Carried forward</i>	271	312	583

DISEASES OF THE SKIN. — *Continued.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	271	312	583
ATROPHIES.			
Of Hair —			
Alopecia areata.....	1	1	2
Defluvium capillitii	1	.....	1
NEW FORMATIONS.			
A. Of Granulation tissue —			
Lupus vulgaris.....	.....	2	2
Lupus erythematosus.....	2	2	4
Scrofuloderma	7	15	22
Syphiloderma.....	42	35	77
Epulis	1	.....	1
B. Of Connective Tissue —			
Xanthoma	1	.....	1
Keloid.....	1	.....	1
Fibroma molluscum.....	1	.....	1
Fibroma	1	1	2
C. Of Blood-vessels —			
Rosacea	1	.....	1
Nævus vasculosus.....	.....	1	1
Telangiectasis .....	.....	1	1
D. Of Epidermal tissue —			
Epithelioma	1	1	2
NEUROSES.			
Pruritus	7	6	13
PARASITIC DISEASES.			
A. Animal —			
Scabies	24	7	31
Pediculi capitis.....	9	18	27
“ vestimentorum	9	6	15
“ pubis.....	2	.....	2
B. Vegetable —			
Tinea trichophytina capitis.....	12	6	18
“ “ corporis	19	15	34
“ “ barbæ	13	.....	13
“ favosa	1	1	2
<i>Carried forward</i>	427	430	857

DISEASES OF THE SKIN. — *Concluded.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	427	430	857
Tinea versicolor	11	1	12
OTHER DISEASES.			
Angioleucitis	1	.....	1
Lymphangitis	2	.....	2
Lympho-adenitis.....	5	3	8
Stomatitis.....	1	1	2
Excoriatio	1	1	2
Balanitis	1	.....	1
Vaginitis.....	.....	1	1
Hordeolum	1	1	2
Panaritium.....	.....	2	2
Varicocele.....	2	.....	2
Blepharitis.....	.....	2	2
Totals	452	442	894

OUT-PATIENT DEPARTMENT.

DISEASES OF THE NERVOUS SYSTEM.

IN CHARGE OF DRs. DENNY AND FOLSOM.

I. Disorders affecting Peripheral Nerves. Neuroses of Sensation :—		<i>Brought forward</i>		181
Anæsthesia	2	Sclerosis (lateral columns) ..	2	
Paræsthesia	7	Hemiparesis	1	
Neuralgia trigemini	5	Tabes Dorsalis	4	
“ cervico-occipitalis ..	1	Spinal Concussion	2	
“ plexus brachialis ..	3	VI. Diseases of the Brain :—		
“ sacro-lumbalis	1	Hemiplegia	18	
“ ischiadica	10	Eclampsia Infantilis	1	
“ diffusa	11	Epilepsia Jacksonia	1	
II. Neuroses of Motor Nerves :—		Cerebral Syphilis	1	
Torticollis	7	Cerebral Concussion	1	
Tremor	2	Paraplegia	2	
Paralysis facialis	8	Aphasia	2	
“ plexus brachialis ..	7	VII. Diffuse Neuroses and Psychoneuroses :—		
“ radialis	2	Melancholia	2	
“ traumatica	7	Erotomania	1	
“ saturnina	8	Neurasthenia	16	
“ plexus pharyngei ..	1	Delusional Insanity	4	
“ infantilis	4	General Paralysis	2	
Paraparesis	5	Hypochondriasis	2	
Neuritis	6	Alcoholic Insanity	1	
III. Complex Neuroses :—		Agoraphobia	1	
Epilepsy	18	VIII. Miscellaneous Disorders involving the Nervous System :—		
Chorea	25	Chronic Rheumatism	12	
Vertigo	8	Cachexia Saturnina	3	
Hysteria	3	Mercury Poisoning	1	
IV. Disorders and Symptoms Involving the Sympathetic Nerves :—		Muscular Rheumatism	3	
Cephalalgia	5	Bright's Disease	1	
Hemicrania	2	Syphilis	1	
Hemianæsthesia	1	Tobacco Poisoning	1	
Insomnia	1	Insolatio	1	
Spermatorrhœa	6	Alcoholism	1	
Dyspepsia	6	Imbecility	2	
Anæmia	5	Not Diagnosed	17	
Constipation	1	Unclassified	2	
Masturbation	2	Referred for admission	1	
V. Diseases of the Spinal Cord :—		“ to Surgeon	2	
Myelitis	1	“ to Physician	2	
<i>Carried forward</i>		“ to Throat Dep't	1	
181		“ to State Hospital	3	
		Total	299	

OUT-PATIENT DEPARTMENT.

DISEASES OF THE THROAT AND NOSE.

From May 1, 1882, to May 1, 1883.

IN CHARGE OF DR. CUSHING.

DISEASES.	Males.	Females.	Total.
Laryngitis, acute	6	5	11
" sub-acute	17	20	37
" chronic	10	6	16
" tuberculous	2	5	7
" syphilitic	4	2	6
Laryngeal cancer.....	1	.....	1
" paralysis.....	1	.....	1
" stenosis	1	.....	1
Pharyngitis, acute	15	13	28
" chronic	39	20	59
" follicular	8	5	13
Pharyngeal ulcer (syph.).....	10	2	12
Amygdalitis, acute.....	5	3	8
" follicular	1	5	6
" hypertrophic	10	10	20
Uvula, elongated.	1	2	3
Diphtheria.....	1	.....	1
Rhinitis.....	.....	3	3
Foreign body in nose.....	1	1	2
Epistaxis	2	1	3
Coryza	8	3	11
Posterior nasal catarrh.....	40	65	105
Anterior nasal hypertrophy	6	4	10
<i>Carried forward</i>	189	175	364

DISEASES OF THE THROAT AND NOSE — *Concluded.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	189	175	364
Ozæna.....	4	5	9
Stomatitis, simple.....	2	2	4
Adenitis, cervical.....	2	1	3
“ parotid.....	.....	2	2
Papilloma of larynx.....	1	1	2
Neuralgia of pharynx.....	.....	4	4
Tumor of tonsil.....	1	.....	1
Polypus nasi.....	7	4	11
Eczema nasi.....	6	2	8
Hysteria.....	.....	7	7
Goitre.....	.....	2	2
Miscellaneous.....	2	5	7
Referred to other departments.....	15	5	20
Totals.....	229	215	444

OUT-PATIENT DEPARTMENT.

DISEASES OF THE EAR.

IN CHARGE OF DR. J. ORNE GREEN.

From May 1, 1882, to May 1, 1883.

DISEASES.	Males.	Females.	Total.
DISEASES OF THE AURICLE.			
Eczema:—			
Acute, one side	1	7	8
" both.....	....	1	1
Intertrigo.....	....	2	2
Cleft lobule .....	....	1	1
DISEASES OF THE EXTERNAL MEATUS.			
Inflammation:—			
Acute, one.....	6	....	6
" both.....	3	3	6
Chronic, both	2	....	2
Accumulation of cerumen.....	32	31	63
Eczema.....	....	2	2
Foreign body	2	2	4
Furuncle	1	1	2
Desquamative inflammation	1	....	1
DISEASES OF THE TYMPANUM.			
Catarrhal inflammation:—			
Acute, one.....	13	17	30
" both.....	6	2	8
Chronic, one.....	4	11	15
" both.....	17	25	42
Serous inflammation, one	2	....	2
Purulent inflammation:—			
Acute, one	23	26	49
" both.....	6	6	12
Chronic, one	15	23	38
" both.....	11	10	21
with mastoid inflammation	1	....	1
<i>Carried forward.....</i>	146	170	316

DISEASES OF THE EAR. — *Concluded.*

DISEASES.	Males.	Females.	Total.
<i>Brought forward</i>	146	170	316
Purulent inflammation — <i>Continued.</i>			
with papilloma .....	....	2	2
“ polypus	4	1	5
“ caries	1	2	3
Results of previous pur. infl.	6	3	9
Plastic inflammation, one.....	1	....	1
“ “ both.....	2	4	6
Neuralgia of tympanic plexus.....	....	1	1
DISEASES OF THE INTERNAL EAR.			
Nervous deafness	3	2	5
Total deafness : —			
from fracture of skull.....	1	....	1
“ purulent inflammation.....	2	4	6
“ cerebro-spinal meningitis	1	....	1
Tinnitus	1	....	1
OTHER DISEASES.			
Trifacial neuralgia.....	1	1	2
No ear disease .....	....	1	1
No diagnosis.....	1	....	1
Referred to other departments.....	....	3	3
Totals.....	170	194	364

OUT-PATIENT DEPARTMENT.

DISEASES OF WOMEN.

IN CHARGE OF DRs. BOARDMAN AND CHADWICK.

From May 1, 1881, to April 30, 1883.

<i>Diseases of the Ovary.</i>		<i>Brought forward.....</i>		171
Complex Cystic Tumor	1	Venereal Ulcer		3
<i>Diseases of Broad Ligament.</i>		<i>Functional Diseases.</i>		
Inflammation	1	Amenorrhœa.....		51
Pelvic Peritonitis.....	3	Scanty Menstruation, and irregu-		
Pelvic Cellulitis.....	3	lar		36
Abscess	1	Vicarious Menstruation.....		1
Cyst	1	Dysmenorrhœa		18
<i>Diseases of the Womb.</i>		Menorrhagia.....		23
Catarrh (Leucorrhœa)	29	Metrorrhagia		1
Subinvolution	4	Pregnancy.....		20
Inflammation	5	Menopause		11
Epithelioma	4	Membranous Decidua		1
Phantom Tumor	2	<i>Diseases of Bladder.</i>		
Fibrous Tumors.....	3	Dysuria		2
Polypus	1	<i>Diseases of Pregnancy.</i>		
Displacements: —		Abortion		2
Anteversion	8	Mammary Abscess		4
Retroversion.....	25	No Diagnosis		16
Anteflexion	6	Referred to Medical O.P.D.....		9
Retroflexion	5	“ Nervous “		2
Prolapsus	35	“ Skin “		1
Procidentia	2	“ Surgical “		3
Stenosis of Ext. os.....	1	“ Throat “		1
Inflammation of Vagina.....	21	Referred for Admission.....		1
Inflammation of Labia	2	Refused Treatment, Non-resi-		
Pruritus.....	5	dents.....		11
Venereal Warts.....	3			
<i>Carried forward.....</i>	171	Total.....		388

BEQUESTS.

GOODNOW FUND. — ELISHA GOODNOW, of South Boston (Ward XII.), who died in the year 1851, and whose will is dated July 12, 1849, bequeathed to the city "all the rest and residue of his estate, real and personal, not otherwise disposed of," for the purpose of establishing, in the Eleventh or Twelfth Wards of the city, a Hospital for the sick; one-half of said funds to be applied for the establishment and maintenance of free beds, which should always be at the disposal and under the control of the Officers of the Government of said Hospital for the time being. Under this will the city came into possession of certain real estate situated on Cross street, which has been disposed of and has produced the sum of \$16,500, which has been invested in City of Boston Six per cent. Stock. Also a lot of land on Third street, South Boston, containing $6,683\frac{1}{3}$ feet, which was disposed of in 1867 for \$4,623.25, of which \$4,000 has been invested in City of Boston Five per cent. Stock, and the balance (\$633.25) remained in the City Treasury at interest, until it amounted to \$1,000, and was invested in a City of Boston Six per cent. Currency Note. The \$10,000 deposited by the Executors of Mr. Goodnow, June 22, 1852, with the Massachusetts Hospital Life Insurance Company, the interest upon which is to be paid to the widow, will, upon her decease, be distributed as follows: —

\$500 to the Penitent Females' Refuge.

\$5,000 to City of Boston; income to be expended for the relief of sick and infirm persons.

\$4,500 to be added to the fund heretofore provided for the support of free beds in the City Hospital.

NICHOLS FUND. — LAWRENCE NICHOLS, who died in September, 1862, made the following bequest to the city: "I give to the City of Boston, towards the establishment and endowment of a City Hospital, in case such Hospital shall have been established at the time of my decease, the sum of one thousand dollars." And in case such Hospital should not have been established by the city at the time of his decease, he directed the same amount to be deposited with the Massachusetts Hospital Life Insurance Company, and suffered to accumulate, by the addition of interest, until such a Hospital should be established.

The executor of the will, Wm. Perkins, Esq., has paid into the treasury nine hundred and thirty-seven dollars and

twenty-five cents (\$937.25), being the amount devised, less the *Internal Revenue Tax* on the same, and \$530.50, as one of the "*residuary legatees in the United States*," from the surplus remaining undisposed of. The \$937.25, with the accumulated interest thereon, has been invested in a certificate of City Stock for \$1,000. The balance (\$530.50) remained at interest until it amounted to \$1,000, and was invested in a City of Boston Six per cent. Currency Note.

NORCROSS FUND.—1868, January 1. The trustees received the sum of two thousand dollars from Hon. OTIS NORCROSS, as the foundation of a fund for the benefit of patients leaving the Hospital poor and destitute of proper clothing. The principal sum is invested in a City of Boston interest-bearing note, to be deposited with the City Auditor, the interest of which is to be collected annually or oftener, and paid over to the President of the Board of Trustees, for the time being, of the City Hospital, to be by him expended at his discretion for the benefit and temporary assistance of those patients who are in his judgment deserving, and who are destitute of proper clothing in which to leave the Hospital, and having no means of procuring it.

Balance on hand May 1, 1882	.	.	.	.	\$421 69
Received interest	.	.	.	.	150 00
					\$571 69
Expended	.	.	.	.	314 19
Balance May 1, 1883	.	.	.	.	<u>\$257 50</u>

BALL FUND.—1870, April 1. The Trustees received from the estate of Mr. JONAS BALL the sum of one thousand dollars for the same purpose, and under the same restrictions, as the Norcross Fund.

Balance on hand May 1, 1882	.	.	.	.	\$133 13
Received interest	.	.	.	.	167 50
					\$300 63
Expended	.	.	.	.	188 94
Balance May 1, 1883	.	.	.	.	<u>\$111 69</u>

GOODNOW LIBRARY FUND.—1874. Donation of GEORGE GOODNOW, the interest of which to be expended annually by the Board of Trustees in replenishing the library of the Hospital with books and pamphlets suitable for the reading of the patients during convalescence.

Balance on hand May 1, 1882	\$77 94
Received interest	90 00
	\$167 94
Expended	48 02
Balance May 1, 1883	<u>\$119 92</u>

SHAW FUND.—1875. Bequest of the late MARY LOUISA SHAW, the income of which to be expended by the Trustees for the purchase of flowers and fruit for the use and comfort of the patients in the Hospital.

Balance on hand May 1, 1882	\$256 50
Received interest	120 00
	\$376 50
Expended	165 24
Balance May 1, 1883	<u>\$211 26</u>

RECAPITULATION CITY HOSPITAL TRUST FUNDS.

<i>Goodnow Fund.</i> —Two certificates City of Boston Six per cent. Stock for \$17,500, and one of Five per cent. Stock for \$4,000, payable to the Mayor for the time being	\$21,500 00
<i>Norcross Fund.</i> —One certificate City of Boston Five per cent. Stock, payable to the Mayor for the time being	2,000 00
<i>Nichols Fund.</i> —Two certificates City of Boston Six per cent. Stock, payable to the Mayor for the time being	2,000 00
<i>Ball Fund.</i> —One certificate City of Boston Six per cent. Stock, payable to the Mayor for the time being	1,000 00
<i>Goodnow Library Fund.</i> —One certificate City of Boston Six per cent. Stock	1,000 00
<i>Shaw Fund.</i> —One certificate City of Boston Six per cent. Stock, payable to the Mayor for the time being	2,000 00
	<u>\$29,500 00</u>

The Ordinance in relation to the City Hospital, Ordinances of 1876, Sect. 9, page 433, provides that said scrip shall be deposited with the Auditor of Accounts, who shall receive the interest as the same shall become due thereon, and add it to the moneys which shall have been appropriated for the use of the Hospital.

HOUSE RULES,

WITH RULES FOR ADMISSION AND DISCHARGES AND GOVERNMENT OF PATIENTS; ALSO RULES FOR VISITORS.

HOUSE RULES.

All employés shall be in their respective places during the hours of duty.

The doors and gates of the Hospital will be closed at 10 o'clock P.M., at which time all inmates shall be quiet, and all not on duty shall be in their rooms.

A record shall be kept of all persons entering the Hospital between the hours of 10 P.M. and 7.30 A.M.

No employés shall be absent from the Hospital, except as permitted by special rules or by the Superintendent.

The use of tobacco, wine, and intoxicating liquors is prohibited within the Hospital, unless prescribed by the Physicians or Surgeons.

All profane and obscene language, loud talking, and incivility, are prohibited.

All employés shall observe such further rules and directions for their conduct as may from time to time be established.

ADMISSION OF PATIENTS.

Applications for admission of patients may be made at the Hospital on each day of the week, Sunday excepted, between 9 and 11 o'clock A.M.

Whenever able the patient shall apply in person. When not able to appear in person, on application made by a friend, the patient shall be visited at his residence.

Any Trustee, or either of the Physicians or Surgeons in attendance, may, in case of emergency, send a patient in the first instance to the Hospital by written permit.

Persons accidentally wounded, or otherwise disabled or injured, shall be received at all hours.

Permits for admission shall be subject to the approval of the Visiting Committee, and the Committee shall, except as above, have power at any time to require the Superintendent to report to them the names of applicants before admitting them, and may dismiss any patient whom they think improperly admitted, or change the terms of admission.

Patients may be admitted by the Trustees to the privileges of the Hospital at such rates of board as the Trustees may, from time to time, determine, payment for such board being secured by the friends of the patients or by the authorities of the city or town to which the patients belong.

Whenever, in the opinion of the Trustees, the circumstances of the patient will warrant it, the whole or a part of the board shall be paid. If separate apartments, or articles not usually furnished at the Hospital, are provided, such payment shall be made therefor as the Trustees shall deem reasonable.

No person having acute syphilitic disease, or alcoholism, shall be admitted except as a paying patient.

No person shall be admitted to the Hospital whose case is judged to be incurable, unless there be urgent symptoms, which are deemed capable of being relieved.

DISCHARGE OF PATIENTS.

Patients shall be discharged by the Superintendent as before provided.

Patients discharged on the recommendation of the Physicians or Surgeons shall be provided with a certificate, stating their condition at the time of discharge, whether cured, relieved, or not relieved, which certificate shall be signed by the Superintendent.

Whenever a patient is removed from the Hospital without the approval of the Superintendent, a written statement to that effect shall be required from any person assuming the responsibility of the removal.

In case of the decease of a patient the Superintendent shall sign the death-certificate. He shall also state the time and cause of death, the disposition made of the body, whether delivered to friends or buried from the Hospital, in which latter case he shall mention the place of interment.

The body of any person dying at the Hospital shall not be delivered without a written receipt from the parties taking the same.

GOVERNMENT OF PATIENTS.

Patients shall implicitly observe all the rules of the Hospital.

Patients shall be in their proper places in the wards during the visit of the Physicians and Surgeons, and always by 7.20 o'clock P.M., unless specially excused by the Superintendent.

Such free patients as are able shall assist in nursing, and

in such other services as may be reasonably required of them.

No patient shall leave the Hospital Grounds without a pass from the Superintendent, nor his ward without the consent of the Nurse in charge.

No patient shall purchase, or cause to be purchased for him, any article of food whatsoever, nor any other article, without the consent of the Superintendent.

Profane and obscene language, loud talking, and incivility are prohibited.

Patients may be visited by clergymen of their own selection, and any wish for the performance of a particular religious rite shall be indulged when practicable.

Complaints, for whatever cause, may be made to the Superintendent or Visiting Committee, and when reasonable shall be by them reported to the Trustees.

VISITORS.

No person shall visit any part of the premises, except on business, or at such times as may be fixed for the reception of visitors, without the permission of the Superintendent, or of some one of the Trustees.

On Monday, Tuesday, Thursday, and Saturday of each week, from 2 to 3 o'clock P.M., friends may be permitted to visit patients, though no patient shall receive more than two visitors on the same day. In all cases, however, the Trustees or Superintendent may exercise discretionary powers as to excluding or admitting visitors.

All visitors shall leave the Hospital when the bell rings at the expiration of the visiting hour.

No visitor shall take any meal in the Hospital, or pass the night therein, without permission from the Superintendent or one of the Trustees.

No visitor shall be allowed to give any article of food or drink to a patient, unless by permission of the Nurse; and any article sent to a patient shall be left with the Superintendent.

THE BOSTON CITY HOSPITAL TRAINING SCHOOL FOR NURSES.

The Trustees of the Boston City Hospital are prepared to give a two years' course of training to women desirous of becoming professional nurses.

Those wishing to receive such a course of instruction must apply to the Superintendent of the City Hospital, Boston.

The most desirable age for candidates is from twenty-one to thirty-five years ; they must be in sound health, and must send with their application a certificate from two responsible persons (one a physician) as to their good character and good health. Upon the recommendation of the Superintendent of the Hospital, and the approval of the Trustees, they will be received for one month on probation. During this month they are boarded and lodged, and have their laundry work done at the Hospital, but receive no compensation.

The Superintendent of Nurses has charge of the Training School, under the authority of the Superintendent of the Hospital and of the Board of Trustees, and the nurses are subject to the rules of the Hospital. Their fitness for the work, and the propriety of retaining or dismissing them at the end of the month of trial, are determined by the authorities in charge of the school, under the direction of the Trustees ; and the same authorities can, in like manner, discharge them at any time, in case of misconduct or inefficiency. They reside in the Hospital, and serve as assistant nurses in its wards.

All nurses are required to be sober, honest, truthful, trustworthy, punctual, quiet, orderly, cleanly, neat, patient, kind, and cheerful.

COURSE OF TRAINING.

Those fulfilling the conditions of the probationary month are accepted as pupils. They must sign a written agreement to remain at the school for two years, and to conform to the rules.

The instruction includes : —

1. The dressing of blisters, burns, sores, and wounds, and preparation and applying of fomentations, poultices, and minor dressings.

2. Cupping, leeching, and subsequent treatment.
3. The administering of enemias, and use of the female catheter.
4. The applying of friction to the body and extremities in the best method.
5. The management of helpless patients in bed, in moving, changing bed and body linen, giving baths, keeping patients warm or cool, prevention and dressing bed-sores, managing position, etc., and in feeding.
6. The making of bandages and rollers, preparation of splints, etc., and bandaging.
7. The making of beds and changing sheets, etc., with patients in bed.
8. The cooking, preparing, and serving of food and delicacies for the sick.

They are also given some instruction in the best practical methods of supplying fresh air, warming and ventilating sick-rooms in a proper manner, and are taught to take proper care of rooms and wards; in keeping all utensils perfectly clean and disinfected, etc.; to observe the sick accurately in regard to the state of the secretions, expectorations, pulse, breathing, skin, temperature, eruptions, sleep, mental condition as to delirium, stupor, etc., condition of wounds, appetite, effect of diet or of stimulants and medicine, and the managing of convalescents.

The instruction is given mainly by the Superintendent of the Training School and by the Head Nurses. Lectures, recitations; and demonstrations, also take place at stated periods by the Hospital Staff and House officers. Examinations, chiefly upon practical points, will take place from time to time.

The pupils are employed as assistant nurses in the wards of the Hospital, and are paid ten dollars (\$10) per month during the first year, and fourteen dollars (\$14) per month during the second year, for their clothing and personal expenses. This sum is in no wise intended as wages, it being considered that their education during this time is a full equivalent for their services.

They are required to wear at all times, while on duty in the wards, the Training School uniform dress.

When the full term of two years is completed, the nurses thus trained, receive (after final examinations) diplomas certifying to the regular course of training, their knowledge of nursing, and their ability.

The right is reserved to terminate the connection of any nurse or pupil with the school for any reason which may be deemed sufficient.

A blank form will be furnished to applicants to be filled in with answers to the following questions in the candidate's own handwriting, and sent to the *Superintendent of City Hospital, Boston, Mass.*

QUESTIONS TO BE ANSWERED BY CANDIDATE.

1. Christian name in full.
2. Are you a single woman or widow?
3. Your present occupation or employment.
4. Age last birthday, and date and place of birth.
5. Height. Weight.
6. In what school or schools educated, and in what place?
7. Are you strong and healthy? Have you always been so?
8. Are your sight and hearing perfect?
9. Have you any physical defects?
10. Have you any tendency to pulmonary complaint?
11. If a widow, have you children? How many? Their ages? How are they provided for?
12. Are you otherwise free from domestic responsibility, so that you are not liable to be called away?
13. Where (if any) was your last situation? How long were you in it?
14. The names in full and addresses of two persons not of your own kindred to be referred to. State how long each has known you. If previously employed, one of these must be the last employer.

Having read, and clearly understanding the foregoing conditions and regulations, I declare the above statement to be correct.

Signed,

Candidate.

Date.

Present Address.

DONATIONS.

During the Hospital year 1882-83 the following donations to the Hospital have been received : —

- From Miss HELEN W. TINKHAM, 371 Marlboro' street, 5 dozen flower-vases.
- From Miss A. R. EVANS, Attleboro' Falls, a barrel of papers and magazines.
- From Miss FLORENCE NICKERSON, 9 dolls and scrap-book.
- From Miss NEWELL, reading matter.
- From WILLIAM T. FREEMAN, Pepperell, Mass., fruit.
- From CHAS. P. GRIMMER, florist, West street, boxes of cut flowers several times.
- From FATHER JAMISON, Boston College, cut flowers.
- From the MISSES WASHBURN, Greenfield, Mass., 2 books of chromos and cards.
- From CHARLES STODDARD, reading matter.
- From A FRIEND, old linen for the Out-Patient Eye Department.
- From MRS. S. G. WEBBER, package of reading matter.
- From HOUSE OFFICER OF CITY HOSPITAL, \$6.00 for Christmas presents for the children.
- From MRS. G. H. LYMAN, 2 albums and package of cards.
- From Miss LELAND and Miss PICKERING, 17 packages of books and toys for Children's Ward.
- From Miss CABOT, Christmas cards.
- From S. S. CHILDREN OF ST. JOHN'S CHURCH, North Adams, Mass., illustrated papers for children.
- From MRS. GEORGE THACHER, Mt. Vernon street, Swiss Chateau, picture puzzles, and Christmas toys.
- From Miss LOUD, \$3.00 for delicacies.
- From Miss IDA MASON, 1 Walnut street, 37 packages of dolls, games, large toys, etc., for Children's Ward.
- From A FRIEND, 3 boxes "cut-up pictures."
- From Miss OSBOURNE, 1 package Christmas cards.
- From J. A. ROBERTS, Beacon street, reading matter.
- From A FRIEND, 25 "Atlantic Monthlies."
- From A FRIEND, a large package of magazines.
- From M. F. GAVIN, M.D., packages of reading matter several times.
- From MRS. LEWIS, Brookline, a package of old linen.
- From A FRIEND, 2 cloth scrap-books.
- From MRS. MARIE SCULL, illustrated German papers and cards for Children's Ward.
- From MRS. LEWIS, Commonwealth Hotel, a package of papers, and scraps on pasteboard.
- From A FRIEND, a roll of old linen.
- From A FRIEND, by Dr. Gay, 92 books for Children's Ward.
- From JAMAICA PLAIN EMPLOYMENT SOCIETY, the making of 200 shirts, 18 chemises, and 8 night-dresses.
- From FIRST CHURCH, Easter Sunday, flower-pieces.
- From A FRIEND, a package of illustrated papers.
- From Miss L. STOWE'S SCHOLARS, Wellfleet, Mass., a large box of May-flowers, twice.
- From MRS. BROWN, Norfolk avenue, June roses.
- From H. L. HIGGINSON, Beverly Farms, 2 large packages of reviews, English papers, and illustrated magazines.
- From ONE OF THE VISITING PHYSICIANS, \$10.00 for purchase of books for Nurses' Library.
- From MRS. ROUNDY, 1 package of old linen for dressing.

- From A FRIEND, a large box of chrysanthemums.
 From MRS. OSBORNE, 7 dressed dolls, sundry toys and playthings.
 From A LADY IN NEW YORK, a barrel of fruit.
 From MRS. GEORGE H. LYMAN, magazines.
 From HOUGHTON, MIFFLIN, & Co., a large lot of magazines, illustrated papers, etc.
 From MRS. FEARING, reading matter.
 From A FRIEND, North End Mission, 5 cloth scrap-books for Children's Ward.
 From ED. J. BROWN, 80 Mt. Vernon street, 2 apparatus for hip-disease, Sayres' splints, surgical shoes, canes, and crutches.
 From UNION CLUB, a large lot of valuable reviews, magazines, etc.
 From SUFFOLK CLUB, illustrated papers.
 From WILLIE SCHIRBY, books and papers for children.
 From ANONYMOUS FRIENDS during Christmas holidays, gifts, toys, fruits, and flowers for children in Hospital.
 From THE PHYSICIANS AND SURGEONS OF CITY HOSPITAL, 60 volumes for Nurses' Library.
 From BOSTON FLOWER MISSION, weekly visits to the wards, and distribution of nosegays to the patients during the spring and summer season.
 From BOSTON YOUNG MEN'S CHRISTIAN UNION, tickets for 96 carriage-drives for convalescent patients.
 From TWO QUARTETTES OF BERKELEY CHURCH, singing in the wards, Sunday afternoons, for six months of the year.
 From PUBLISHERS of following magazines and papers, 1 year free subscription:—
- | | |
|--------------------|------------------------|
| St. Nicholas, | Newton Transcript, |
| Youth's Companion, | The Omaha Bee, |
| Wide Awake, | Harper's Young People. |
- From THE HOSPITAL NEWSPAPER SOCIETY, many thousands of daily newspapers, books, and miscellaneous reading.
 From MANY UNKNOWN FRIENDS, reading matter, fruit, flowers, toys, and sundry articles too numerous to mention.
 From EASTER CARD MISSION, on Easter Sunday, 450 Easter cards and gifts.

DIETARY FOR PATIENTS.

MILK DIET. DAILY. — Milk, 3 pints; Bread (Wheat or Graham), toasted, if desired; Butter, Rice, Oatmeal, Corn Starch, or Farina.

HOUSE DIET.

Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
BREAKFAST. Coffee, or Tea, or Cocoa, with Milk and Sugar, Bread (Wheat, Graham, and Brown), Butter, Meat Hash. Porridge of Oatmeal, Cornmeal, or Wheaten Grits, etc.	BREAKFAST. Coffee, or Tea, or Cocoa, with Milk and Sugar, Bread (Wheat, Graham, and Brown), Butter, Meat Hash.	BREAKFAST. Coffee, or Tea, or Cocoa, with Milk and Sugar, Bread (Wheat, Graham, and Brown), Butter, Porridge, or Mush, of Oatmeal, Cornmeal, or Wheaten Grits, etc.	BREAKFAST. Coffee, or Tea, or Cocoa, with Milk and Sugar, Bread (Wheat, Graham, or Brown), Butter, Corned Beef Hash.	BREAKFAST. Coffee, or Tea, or Cocoa, with Milk and Sugar, Bread (Wheat, Graham, or Brown), Butter, Porridge, or Mush, of Oatmeal, Cornmeal, or Wheaten Grits, etc.	BREAKFAST. Coffee, or Tea, or Cocoa, with Milk and Sugar, Bread (Wheat, Graham, or Brown), Butter, Fish Hash.	BREAKFAST. Coffee, or Tea, or Cocoa, with Milk and Sugar, Bread (Wheat, Graham, or Brown), Butter, Fish Hash.
DINNER. Roast Beef, or Mutton, Potatoes, Bread.	DINNER. Soup, or, Stewed Meat, Vegetables, Bread, Pudding, of Bread, Rice, Oatmeal, Hominy, or Corn Starch.	DINNER. Corned Beef, Boiled, Turnips, or Cabbage, Potatoes, Bread.	DINNER. Roast Beef, or Mutton, Roast Boiled, Potatoes, Tomatoes, or other Vegetables, Bread.	DINNER. Soup, or Stewed Meat, Vegetables, Bread, Pudding, of Bread, Rice, Oatmeal, Hominy, or Corn Starch.	DINNER. Fish, Fresh or Salt, Potatoes, Beets, or other Vegetables, Bread.	DINNER. Soup, or Stewed or Minced Meat, Potatoes, Bread, Pudding, of Bread, Rice, Oatmeal, Hominy, or Corn Starch.
SUPPER. Coffee, or Tea, Shells, or Cocoa, with Milk, and Sugar, Bread (Wheat or Graham), Butter.	SUPPER. Coffee, or Tea, Shells, or Cocoa, with Milk and Sugar, Bread (Wheat or Graham), Butter.	SUPPER. Coffee, or Tea, Shells, or Cocoa, with Milk and Sugar, Bread (Wheat or Graham), Butter.	SUPPER. Coffee, or Tea, Shells, or Cocoa, with Milk and Sugar, Bread (Wheat or Graham), Butter.	SUPPER. Coffee, or Tea, Shells, or Cocoa, with Milk and Sugar, Bread (Wheat or Graham), Butter.	SUPPER. Coffee, or Tea, Shells, or Cocoa, with Milk and Sugar, Bread (Wheat or Graham), Butter.	SUPPER. Coffee, or Tea, Shells, or Cocoa, with Milk and Sugar, Bread (Wheat or Graham), Butter.

EXTRAS. — In addition to the above, the following extras may be ordered by the Visiting Physicians and Surgeons: — Milk, Beef Tea, Chicken Broth, Mutton Broth, Gruel, Oatmeal Mush, Corn Starch, Boiled Rice, Eggs, Beef Steak, Mutton Chop, and Chicken.

A small allowance of Milk and Beef Tea will be provided for each ward daily. The House Physician or Surgeon may order these articles by a signed special order, in each case when needed, for patients who enter in the intervals between the regular visits of the Visiting Physician or Surgeon to whom the case is assigned.

All Wines and Liquors, Ale, Beer, etc., will be ordered by the Visiting Physicians and Surgeons only, excepting in emergencies, when special orders for the same may be given by the House Physician or Surgeon, to be afterwards approved by the Visiting Physician or Surgeon, as the case may be.

JULY 2, 1878.

By Order of the Board of Trustees.

CITY OF



BOSTON.

ANNUAL REPORT

OF THE

OVERSEERS OF THE POOR,

1882-83.

BOARD OF OVERSEERS OF THE POOR, 1883-84.

Thomas F. Temple, *Chairman*.

Isaac T. Campbell,
Henry W. Pickering,
Levi L. Willcutt,
Thomas F. Ring,
John P. Dore,

James G. Davis,
John A. Scott,
Benj. F. Campbell,
Daniel A. Madden,
M. C. Curry,

Thomas Sproules.

Treasurer. — Frederic W. Lincoln.

Secretary. — Benjamin Pettee.

Office Clerks.

Henry Shaw,
Josephine Newmarch,

George O. Wilson,
Helen F. Murtagh.

Visitors.

William Norton,
David B. Weston,

Thacher F. Sweat,
Frank H. Cowing,
Charles J. Roath.

Agents.

D. S. Smalley, W. Roxbury.

G. W. Warren, Brighton.

Physicians.

J. Williams, Charlestown. G. Faulkner, W. Roxbury.
Edw. T. Williams, Roxbury. H. E. Marion, Brighton.

Janitor of Charity Building. — John O'Brien.

Matron of Temporary Home. — Adeline E. Crockett.

Supt. of Lodge for Wayfarers. — Dennis A. Flynn.

Ass't. Supt. of Lodge for Wayfarers. — Edward Riley.

OFFICE OF THE OVERSEERS OF THE POOR, CHARITY BUILDING,
COR. OF HAWKINS AND CHARDON STREETS, BOSTON, MAY 31, 1883.

To His Honor the Mayor and the City Council of Boston: —

The Overseers of the Poor, in conformity with the ordinances, herewith present a statement of the condition of the department which has been under their charge during the last financial year.

This is the 19th annual report of the present series, the first report being for the year 1864, when the Board, under its new organization, went into operation. While, during this period, unusual attention has been called in every large city to the policy of municipal assistance and to the interests of that class of population for whose care it is the special function of this Board to provide, yet it has had occasion to make but few radical changes in the methods originally established. In fact, other municipalities have followed in our footsteps, and the more private charitable organizations have fallen into line so far as personal supervision and the full registration of cases are concerned. The most notable improvement in the system, as first inaugurated, is the application of the labor test to those who are able to work. Especially, by the establishment of the Wayfarers' Lodge, an opportunity has been afforded to carry this plan into execution, and the rigor of its discipline has winnowed out to some extent the indolent and unworthy, besides being of some pecuniary benefit to the city.

Our report must necessarily consist principally of statistics; and, in comparing the present with the previous year, it will be noticed that there has not been any material change as to numbers or expenditures. For a series of years, until the last, the figures were gradually diminishing, and we had hopes it might continue in that direction, but are forced by circumstances to the conclusion that, with the anticipated growth of the population of the city, a much larger reduc-

tion cannot reasonably be expected in the future. We are not oblivious to the fact that dependence often increases in the ratio that attempts are made to relieve it, and that improvidence is generated by the easy good nature and compassion which the unreflecting bestow upon it; nevertheless it is manifest that, in a large community like ours, there is a portion of the inhabitants who are poor,—some miserably so,—and whose needs deserve the sympathy of the more highly favored. Accident, sickness, and misfortune come in the order of Providence; old age with its infirmities, and infancy in its helplessness, are always affording subjects for tender care and material aid.

The amount of money appropriated by the City Council for the last year was \$114,970. The amount of drafts on the City Treasury, on this account, was \$111,741.63, leaving a balance in the City Treasury, which we did not call for, of \$3,228.37. We have aided from our funds a class of the poor who are temporarily in the city, but whose legal claims for relief are upon the Commonwealth and other cities and towns. For the aid rendered to these cases we have been reimbursed. The sums received from these and other sources, amounting in all to \$19,222.13, we have paid into the City Treasury, in addition to which we have paid in \$5,000 from our receipts for wood sold,—making a total of \$24,222.13. If this is deducted from the amount expended from the annual appropriation, \$111,132.01, it leaves a net charge to the city, on account of this department for the last year, of \$86,909.88. From this should be deducted the cost of the new Supply Building, \$4,525.85 (that being a permanent improvement), leaving the net expense for the year \$82,384.03.

The total number of families assisted was 4,196, representing 12,706 persons, about $3\frac{1}{2}$ per cent. of our population; the number of visits by the officers of the Board, 14,658, exclusive of physicians' visits.

We have aided, out of the city, 243 families, who have legal claims upon us. There has been spent on their account, \$8,995.95. These Boston cases were residing in 65 other cities and towns of the Commonwealth.

The number of new applicants for relief who have been assisted and registration papers filled during the year was 872. The whole number of these papers filled, and on our books, is now 22,469,—a complete inventory of families relieved by the Overseers of the Poor for the last nineteen years.

In the absence of a local poor-house within the city limits, it became necessary to establish, some years since, under the

charge of the Board, two institutions, for the benefit, in a great measure, of the floating population of the city. One is called the "Temporary Home for Women and Children," and the other "Wayfarers' Lodge." Both of these establishments are for temporary cases, the inmates remaining but a short time, and in a great degree, especially the latter, of the workhouse order, as labor is required when the person aided is physically able to render it. To the Temporary Home there have been admitted, during the year, 2,681 females and 625 children. No marked change as to numbers or the class seeking shelter within its walls has been noticed. The average for the year has been about the same. The number of foundlings and abandoned children left at its doors was 92. There have been nine deaths. Two were adults, who died soon after admittance.

The statistics of the Wayfarers' Lodge indicate a larger number of meals furnished, and a less number of lodgers accommodated. The number of meals was 37,799; lodgers, 18,737. The labor required is principally in the wood-yard. The wood is purchased by the Board, sawed and split by the inmates, and then sold to the city for the public buildings, or to our householders. This enterprise was started for other reasons than a mercantile venture, and its existence would be justified if not a cent was returned; but, as a matter of fact, there has been a profit on the transaction, and \$5,000 have already been paid into the City Treasury as the result of this economical experience.

In addition to the amount which is annually appropriated by the City Council for the special use of this department, the Board, in its corporate capacity, has in its care certain charitable funds, the income of which is for the benefit of a class of persons of a different social position from those ordinarily under the charge of the Overseers of the Poor. The execution of this trust is one of much delicacy, in order to carry out fully the designs of the lamented and honored dead, who have shown their love for Boston, and its inhabitants by making so liberal endowments in their behalf. The number of pensioners on these funds is now 252, a reduction of 20 during the year; 24 have died, 25 have been added, and 21 have been taken off the list, their circumstances no longer requiring the aid furnished. Without any publicity, the closing days of some of our most worthy, and, in the past, useful citizens, have been rendered comfortable and happy by these testamentary gifts of the departed.

The number of boys maintained from the Boylston Education Fund is 16.

Twenty-four persons have received special grants from the Lucy Bullman Charity.

The whole amount expended from all the charitable funds, was \$18,053.23. This, with the sum spent from the city appropriation, makes a total during the year of \$129,185.24.

By a special vote of the City Council the Stoughton Poor Fund has been transferred from the custody of the City Treasurer to that of the Treasurer of our Board. The origin of this fund was a bequest in 1701 by Lieutenant Governor Stoughton of fifty pounds for the poor of Dorchester. On the annexation of the town, it came into the possession of the City of Boston. It now consists of a \$1000 city note, drawing 4 per cent. interest.

As Overseers of the Poor we have collected from cities and towns the sum of \$2,623 for the board and care of patients in the City Hospital who had settlements in those localities. This sum has been paid to the Trustees of that institution.

One of the most important events of the year was the erection of an independent storehouse for the storage and delivery of the groceries and other provisions which we supply to the poor. A portion of the basement of our main edifice was formerly used for this purpose. There was some complaint that an unpleasant odor arose from these materials, which permeated the whole building. This is obviated by the erection of the new structure in the yard, which has more ample accommodations, and no doubt will furnish all convenient facilities for this branch of our business. The cost of this building, \$4,525.85, was paid out of our annual appropriation. Since the removal of the storagerooms to the new quarters important improvements have been made in the basement. New offices and consulting rooms have been built for the City Physician, and additional accommodations have been secured for other charity work. This portion of the building has been renovated and painted, and a marked change is seen as compared with its former condition.

Following the body of this report will appear, as usual, the Treasurer's statement of the trust funds and investments, the receipts and expenditures, with the several details of the different departments of our work.

It will be noticed that in this report there are new tables of statistics, with details not usually given in regard to the applicants aided during the past year. These may prove of interest to those engaged in charitable work.

As our main building was erected by the coöperation of the citizens with the city, for the purpose of concentrating

as far as possible, public and private charity, we have occasionally called upon the other occupants for an account of the condition of their organizations, and a statement of the special field of labor to which they are devoted. We have asked them to furnish the same for the present year. These reports will be found in the appendix. From these reports, no doubt, it will appear that it was a wise measure to bring together under one roof those engaged in the same laudable effort to alleviate the condition of their less-favored fellow-men.

In the month of August we were called to mourn the loss, by death, of one of our most venerable and respected associates. Dr. Phineas M. Crane became a member of the Board, representing the East Boston district, in 1870, and, until the period of his illness and death, was actively interested in its measures, and devoted to the welfare of the class which it serves. Honest and sincere in character, firm in his convictions of right and wrong, loyal to his duties wherever he was placed, of much public spirit and cordial in his friendships, he should never be forgotten in this sphere of his labors. The action of the Board at the time of his decease, which was placed upon the records, bears testimony to the affection with which he was regarded by his surviving associates.

Following the precedents of former reports, it may not be improper to speak of the merits of those who faithfully served the interests which were committed to them, and whose connection with the Board ceased with the close of the year. Mr. Thomas C. Amory was the last of the original members, his term of service continuing for nineteen years. Becoming thoroughly acquainted with the evils of the old system of administration, he earnestly interested himself as a member of the city government in the efforts for reform. When the new Board was organized, he became an active and efficient member, exerted a potent influence in giving a direction to the new system, served through these many years, and continued in the discharge of his duties, until the close of his official term.

Messrs. Liverus Hull, and Stephen A. Stackpole, not so long in the service, yet committed themselves with zeal to the obligations which belonged to the position, and they each and all deserve that commendation which duty conscientiously discharged should receive.

The Board enter upon the new year with the desire to maintain the reputation which the city has acquired in this department of the public service, and to transmit to their

successors, without fault or wilful neglect, the interests committed by the City Council to their charge.

Respectfully submitted,

In behalf of the Overseers of the Poor.

THOS. F. TEMPLE,
Chairman.

REPORT OF THE OVERSEERS OF THE POOR.

Statement of receipts and expenditures for the year ending
April 30, 1883 : —

RECEIPTS.

Cash on hand, May 1, 1882	\$5,670 35
Drafts on City Treasurer, and requisitions for Temporary Home, Wayfarers' Lodge, and for new building of the Sup- ply department	\$111,741 63
Cash from cities and towns	8,998 22
Cash from occupants of Charity Building, for heating	852 42
Cash from Commonwealth, for relief	6,340 47
Cash from state and other sources for burials	2,924 63
Aid returned by paupers	40 53
Cash from sundry persons, for board in Temporary Home	55 86
Receipts from cities and towns, for account of aid in City Hospital	2,623 00
Cash from Wayfarers' Lodge, for account wood sold	5,000 00
	138,576 76
	\$144,247 11

EXPENDITURES.

Amount paid for burials	\$2,864 11
“ “ cities and towns, for relief of Boston poor	8,995 95
Amount paid expenses City Temporary Home	5,117 94
Amount paid expenses Hawkins- street Lodge for Wayfarers	8,097 84
Amount paid pensions and grants at office	20,064 33
<i>Amounts carried forward,</i>	\$45,140 17
	\$144,247 11

<i>Amounts brought forward,</i>	\$45,140 17	\$144,247 11
Amount cash paid for immediate relief of persons having no settlement	327 65	
Amount paid for fuel (1,518 $\frac{1}{4}$ tons coal, 23 $\frac{1}{16}$ cords wood, and 1 ton coke)	10,334 99	
Amount paid for groceries and expense of delivery, \$26,878 27		
Less amount received for old barrels, \$310 85; supplies furnished Home and Lodge, \$2,011 51; soap for Charity Building, \$7.50, 2,329 86		
		24,548 41
Amount paid salaries of Treasurer and Secretary	3,983 33	
“ “ salaries of book-keeper and clerks, ...	4,795 77	
“ “ salaries of visitors and agents	8,916 50	
“ “ office expenses	800 96	
“ “ transportation	291 34	
“ “ Charity Building expenses	4,916 09	
“ “ medical attendance and medicine	2,550 95	
“ “ Building new store for the Supply dept. in the yard of the City Temporary Home on Bowker street	4,525 85	
		\$111,132 01
Cash paid City Hospital	2,623 00	
Cash paid treasurer of city	24,222 13	
Cash balance, April 30, 1883	6,269 97	
		\$144,247 11
		\$144,247 11

Attest :

BENJ. PETTEE,

Secretary.

Payments to the City Treasurer during the Year.

Receipts from occupants of Charity Building for heating during the year	\$852 42
Receipts from cities and towns during the year, ...	8,998 22
Receipts from the State for burials	2,649 25
Receipts from the State for relief of sick	4,598 15
Receipts from the State for temporary aid	1,742 32
Receipts for sundry burials	285 38
Receipts from paupers — aid refunded by them, ...	40 53
Receipts for account Temporary Home, board of females, etc.	55 86
Receipts for account Wayfarers' Lodge from sales of wood	5,000 00
	\$24,222 13

Expenditures on Account of Charity Building.

Fuel, 375 tons coal and 4½ cords wood	\$2,172 75
Engineer, salary	1,483 33
Janitor — salary, \$916.66, sundries, \$12.28	928 94
Watering streets	37 50
Gas	112 96
City meter rates	93 70
Brushes and mats	12 43
Awnings, etc., ...	42 37
Soap	7 50
Hose	11 60
Repairs	13 01
	\$4,916 09

Deduct for estimated cost of heating the Temporary Home, included in the above	1,703 92
	\$3,212 17
Received from occupants	852 42
Net cost	\$2,359 75

Expenditures on account of City Temporary Home.

Groceries, provisions, etc.	\$2,499 36
Salaries	1,373 40
Fuel and gas	464 85
Water-rates	100 00

Amount carried forward, \$4,437 61

<i>Amount brought forward,</i>	\$4,437 61
Watering streets	37 50
Repairs	96 72
Medical attendance and medicines	99 35
Furniture and furnishing goods	373 48
Sundries	65 42
Stationery	7 86
	\$5,117 94
Estimated cost of heating, included in expenditures on account of Charity Building	1,703 92
	\$6,821 86
Deduct for board and medical relief of sundry persons, charged to their place of settlement	295 12
Net cost	<u>\$6,526 74</u>

STATISTICS OF THE HOME.

ADMITTED.

American Females	688
Foreign "	1,873
Children under 12 years of age	615
Others	120
Births	10
Total	3,306
Lost children restored to their parents or guardians	128
Persons furnished with employment	577
Adults sent to almshouses	173
Children " "	173
Persons sent to their friends	129
Children who left with their parents	417
Deaths	9

Six thousand and eighty-eight single meals furnished to females and children at the Home.

EXPENDITURES ON ACCOUNT OF LODGE FOR WAYFARERS.

Salaries	\$2,962 00
Groceries and provisions	3,767 17
Furniture and bedding	292 46
<i>Amount carried forward,</i>	\$7,021 63

<i>Amount brought forward,</i>	\$7,021 63
Fuel and gas	750 25
Repairs, etc.	100 97
Stationery and printing	87 13
Water-rates	79 71
Rent of telephone	1 83
Sundries	26 10
Papers.	30 22
	\$8,097 84

Statistics of the Lodge, May 1, 1882, to April 30, 1883.

Number of lodgers	18,737
Single meals furnished	37,799

BIRTHPLACE OF LODGERS.

America,	7,513	Sweden,	124
Ireland,	4,952	Denmark,	38
England,	4,120	France,	30
British Provinces,	1,239	West Indies,	70
Germany,	309	Other countries,	31
Scotland,	311		

Families Aided by the Board during the Year ending April 30, 1883.

2,333 having settlements here, aided directly from this office, or by agents in the outlying districts.

243 having settlements here, aided in other cities and towns through the Overseers of the Poor of those places.

344 families, of which the man is unsettled, the wife and children having a settlement here.

399 residing here, having settlements in other cities and towns, which refund amount of relief granted.

586 unsettled cases, aided on account of the State.

291 non-settlement cases, temporarily aided.

4,196 families, representing 12,706 persons. Of these 5,939 are under 16 years of age.

Number Aided in each Month of the past two Years.

1881-82.		1882-83.	
1881. May,	921 families.	1882. May,	877 families.
June,	887 "	June,	868 "
July,	1,124 "	July,	1,047 "
Aug.,	850 "	Aug.,	859 "
Sept.,	826 "	Sept.,	853 "
Oct.,	1,088 "	Oct.,	1,020 "
Nov.,	1,018 "	Nov.,	992 "
Dec.,	2,075 "	Dec.,	2,122 "
1882. Jan.,	2,534 "	1883. Jan.,	2,574 "
Feb.,	2,240 "	Feb.,	2,396 "
March,	1,554 "	March,	1,899 "
April,	1,221 "	April,	1,323 "

Residences of Families Aided.

Charlestown	748 families.
East Boston	154 "
North and West Ends	806 "
Middle district (State street to Dover street),	695 "
South of Dover street to Roxbury	302 "
South Boston	412 "
Roxbury	626 "
Dorchester	74 "
West Roxbury	62 "
Brighton	41 "
Aided from this office but living out of the city	33 "
Boston poor aided by other cities and towns,	243 "
	4,196

CAUSES OF AID.

Old age, etc.	1,134
Sickness	1,207
Large families, with lack of, or inability to per- form, work	1,050
Invalids, or persons unable from feebleness or dis- ability to earn full support	394
Lack of work, where ability and willingness are not wanting	263
Crippled	95
Blind	31
Orphans	22
	4,196

Of the applicants aided : —

Single men	numbered	104
Spinsters	“	199
Widows (alone)	“	895
Men with families	“	1,288
Widows with families	“	1,214
Deserted wives with families	“	359
Families, men in House of Correction	“	36
“ “ Almshouse	“	12
“ “ Insane Asylum	“	14
“ “ Hospital	“	12
“ men at sea	“	13
“ men away for work	“	14
Children	“	36
		4,196

Number in Families.

One person each in	.	.	.	.	1,261 families
Two persons	“	.	.	.	843 “
Three	“	“	.	.	609 “
Four	“	“	.	.	522 “
Five	“	“	.	.	383 “
Six	“	“	.	.	303 “
Seven	“	“	.	.	156 “
Eight	“	“	.	.	75 “
Nine	“	“	.	.	27 “
Ten	“	“	.	.	12 “
Eleven	“	“	.	.	4 “
Twelve	“	in	.	.	1 family
					4,196

Ages of Applicants.

100 years 1	Betw. 60 and 70 years . 651
98 “ 1	“ 50 and 60 “ . 724
96 “ 1	“ 40 and 50 “ . 927
95 “ 3	“ 30 and 40 “ . 938
92 “ 5	“ 20 and 30 “ . 276
91 “ 2	Under 20 5
90 “ 3	Children 36
Betw. 80 and 90 years . 137	
“ 70 and 80 “ . 486	
	4,196

When first Aided.

1883 .	478 families.	1864 .	55 families.
1882 .	579 “	1863 .	10 “
1881 .	409 “	1862 .	9 “
1880 .	275 “	1861 .	6 “
1879 .	250 “	1860 .	19 “
1878 .	271 “	1859 .	8 “
1877 .	220 “	1858 .	4 “
1876 .	357 “	1857 .	5 “
1875 .	419 “	1856 .	3 “
1874 .	338 “	1855 .	2 “
1873 .	94 “	1854 .	1 “
1872 .	43 “	1852 .	1 “
1871 .	50 “	1850 .	1 “
1870 .	46 “	1849 .	1 “
1869 .	30 “	1848 .	1 “
1868 .	51 “	1845 .	1 “
1867 .	50 “	1844 .	2 “
1866 .	52 “	1832 .	1 “
1865 .	54 “		
			4,196 families.

TRUST FUNDS IN THE HANDS OF THE OVERSEERS OF THE POOR.

Pemberton Fund. — This fund comprises bequests made to the City of Boston from 1760 to the present time, from "A. B.," Daniel Oliver, Margaret Blackader, Alice Quick, Anne Wheelwright, Mary Ireland, Benjamin Pemberton, Martha Stevens, Mrs. H. Driscoll, William Breed, Samuel Eliot, John Coffin Jones, Mary Belknap, "A Citizen of Boston," Anonymous, Miss Dr. Harriot K. Hunt, and George Higginson. The most important, however, of the bequests was from Benjamin Pemberton, Esq., whose will was proved June 25, 1782, and for that reason his name has been given to the fund. The income of this fund is to be expended, at the discretion of the Overseers, in semi-annual payments to the poor of this city.

Boylston Relief and Education Funds. — These funds were from a bequest by John Boylston, who died in London, England. His will was proved June 12, 1795. One portion of the bequest is ordered to be paid to "poor and decayed householders of the Town of Boston, not under fifty years of age; persons of good character, and reduced by the acts of Providence, not by indolence, extravagance, or other vice." The other portion to be applied to the "nurture and instruction of poor orphans and deserted children of the Town of Boston, until fourteen years of age."

Mason Fund was a bequest from Jonathan Mason, by will dated July 15, 1798, interest to be paid annually to the chaplain of the almshouse or workhouse; interest to be added until one is appointed. The interest is now paid semi-annually towards the salary of the chaplain of the House of Industry.

Dexter Fund was a bequest from Samuel Dexter, by will dated May 7, 1811, for supplying firewood or coal to such objects of charity as are not supported in the almshouse, though sometimes relieved by the Overseers of the Poor.

Jeffries Fund was a bequest by David Jeffries, former Town Treasurer. Will dated January, 1786. "Income to be applied to the purchase of tea, coffee, chocolate, and sugar, for the refreshment of those persons who, in the providence of God, are or shall be obliged to seek refuge in the almshouse, after having lived reputably; but always giving preference to the pious poor."

Lucy Bullman Charity consists of an estate on Cambridge and Joy streets, in this city, which came into the possession of the City of Boston, in accordance with the will of Lucy Bullman, proved at Probate Court, Suffolk County, January 9, 1832, in which it is provided that, upon the death of cer-

Statement of Trust Funds in the hands of the Overseers of the Poor, F. W. Lincoln, Treasurer, April 30, 1883.

		Pemberton or General Fund.		Boylston Education Fund.		Boylston Relief Fund.		Mason Fund.		Dexter Fund.		Jeffries Fund.		Lucy Bullman Charity.		David Sears Charity.		Pierce Fuel Fund.		Holton Protestant Pauper Fund.		Holton Protestant Poor Fund.		Stoughton Poor Fund Income.		Total.
United States 4 per cent. Treasury Bonds							6	\$7,300 00																		\$7,300 00
State of Mass. 5 per cent. Gold Bonds	2	\$2,000 00	2	\$2,000 00																						4,000 00
City of Boston Currency Notes	16	55,100 00	31	107,500 00	4	\$12,650 00	1	1,000 00	11	\$1,750 00	3	\$3,000 00	11	\$13,000 00	23	\$180,000 00	1	\$1,500 00	1	\$2,000 00	1	\$1,500 00		\$1,000 00		380,000 00
Fifty Associates' Corporation Stock															19	22,800 00										22,800 00
Real Estate																62,200 00										62,200 00
Old Boston National Bank Stock	57	2,850 00	27	1,350 00																						4,200 00
Columbian " " "			60	6,000 00																						6,000 00
Globe " " "	19	1,900 00	30	3,000 00	11	1,100 00																				6,000 00
Market " " "	60	6,000 00																								6,000 00
Massachusetts " " "	48	11,500 00	9	2,250 00	12	3,000 00			4	1,000 00																17,750 00
New England " " "	50	5,000 00																								5,000 00
North " " "	9	882 00	16	1,608 00																						2,490 00
State " " "	60	6,000 00																								6,000 00
Tremont " " "	47	4,700 00	13	1,300 00																						6,000 00
Union " " "	32	3,200 00			28	2,800 00																				6,000 00
Washington " " "	60	6,000 00																								6,000 00
Investments		\$105,132 00		\$125,008 00		\$19,550 00		\$8,300 00		\$2,750 00		\$3,000 00		\$13,000 00		\$265,000 00		\$1,500 00		\$2,000 00		\$1,500 00		\$1,000 00		\$547,740 00
Cash		901 25		96 88		346 14		109 50		379 13		145 97		184 56				45 00		454 27		22 27		419 89		3,005 12
Cash due the Treasurer																99 74										
Total		\$106,033 25		\$125,104 88		\$19,896 14		\$8,409 50		\$3,129 13		\$3,145 97		\$13,184 56		\$264,900 26		\$1,545 00		\$2,454 27		\$1,522 27		\$1,419 89		\$550,745 12
Total April 30, 1882																										536,891 86
Increase																										\$13,853 26

BOSTON, May 1, 1883.

FREDERIC W. LINCOLN,

Treasurer.

Statement of Trust Funds in the hands of the Overseers of the Poor, F. W. Lincoln, Treasurer, April 30, 1883.

		Pemberton or General Fund.		Boylston Education Fund.		Boylston Relief Fund.		Mason Fund.		Dexter Fund.		Jeffries Fund.		Lucy Bullman Charity.		David Sears Charity.		Pierce Fuel Fund.		Holton Protestant Pauper Fund.		Holton Protestant Poor Fund.		Stoughton Poor Fund Income.	Total.
United States 4 per cent. Treasury Bonds								6	\$7,300 00																\$7,300 00
State of Mass. 5 per cent. Gold Bonds	2	\$2,000 00	2	\$2,000 00																					4,000 00
City of Boston Currency Notes	16	55,100 00	31	107,500 00	4	\$12,650 00	1	1,000 00	1	\$1,750 00	3	\$3,000 00	11	\$13,000 00	23	\$180,000 00	1	\$1,500 00	1	\$2,000 00	1	\$1,500 00		\$1,000 00	380,000 00
Fifty Associates' Corporation Stock															19	22,800 00									22,800 00
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Columbian " " "			60	6,000 00																					6,000 00
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Market " " "	60	6,000 00																							6,000 00
Massachusetts " " "	46	11,500 00	9	2,250 00	12	3,000 00			4	1,000 00															17,750 00
New England " " "	50	5,000 00																							5,000 00
North " " "	9	882 00	16	1,608 00																					2,490 00
State " " "	60	6,000 00																							6,000 00
Tremont " " "	47	4,700 00	13	1,300 00																					6,000 00
Union " " "	32	3,200 00			28	2,800 00																			6,000 00
Washington " " "	60	6,000 00																							6,000 00
Investments		\$105,132 00		\$125,008 00		\$19,550 00		\$8,300 00		\$2,750 00		\$3,000 00		\$13,000 00		\$265,000 00		\$1,500 00		\$2,000 00		\$1,500 00		\$1,000 00	\$547,740 00
Cash		901 25		96 88		346 14		109 50		379 13		145 97		184 56				45 00		454 27		22 27		419 89	3,005 12
Cash due the Treasurer																99 74									
Total		\$106,033 25		\$125,104 88		\$19,896 14		\$8,409 50		\$3,129 13		\$3,145 97		\$13,184 56		\$264,900 26		\$1,545 00		\$2,454 27		\$1,522 27		\$1,419 89	\$550,745 12
Total April 30, 1882																									536,891 86
Increase																									\$13,853 26

Boston, May 1, 1883.

FREDERIC W. LINCOLN,

Treasurer.

tain persons therein named, said estate is given to the City of Boston, upon the condition that the estate should never be sold, but the income used for the benefit of the poor. By a vote of the City Council, approved by the Mayor, January 4, 1873, this estate was placed in charge of the Overseers of the Poor.

The David Sears Charity is a fund contributed by the late Hon. David Sears, for the relief of the poor, the income only to be expended "in aid and for the support of citizens or families who may have seen better days, and for charity in all its forms, in such a manner as may best tend to alleviate the sufferings of human life, and render the condition of the poor more comfortable."

Pierce Fuel Fund. — The legacy of Caleb Pierce to the City of Charlestown, accepted by the City Council of that city, May, 1861. "Income to be expended in the purchase of fuel, to be distributed to those indigent widows whose husbands, before their decease, had resided in Charlestown at least one year, and the said widows still continuing to reside in Charlestown at the time of receiving said bounty. Income payable annually to the Trustees of the Charlestown Poor Fund."

Holton Protestant Poor Fund. — A bequest by James Holton to the inhabitants of the town of Brighton. Income "to be annually expended forever, in purchasing and distributing provisions among poor and indigent Protestant families in said town of Brighton, on Thanksgiving, or other holidays, or just previous to such holidays, to the end that such poor Protestant families may have the means, in some degree, of enjoying such holidays in common with their fellow-citizens; and I specially direct, that, in such periodical distributions, unmarried Protestant females, who are poor or needy, shall receive a liberal share of provisions, and also other articles of comfort, such as said distributors shall deem to be most conducive to the comfort and happiness of that lone class of citizens."

Holton Protestant Pauper Fund. — A bequest of James Holton to the inhabitants of the town of Brighton. Income "to be annually expended, in whole or in part, as necessity or circumstances may require, by the Selectmen of said town, in providing good and plentiful meals, on Thanksgiving day, or other holidays, to the Protestant paupers of said Brighton." Unexpended income to be added to the principal.

Stoughton Poor Fund. — A bequest of Lieut.-Gov. William Stoughton, who died July 7, 1701. By his will he gave £50 to the relief of the poor of Dorchester, to be improved by the care of the Selectmen, the income to be distributed to the most needy inhabitants.

OVERSEERS OF THE POOR, 1882-83.

(One-third of the Board is chosen annually by the City Council.)

For One Year.

ISAAC T. CAMPBELL,	THOMAS F. RING,
HENRY W. PICKERING,	JOHN A. SCOTT.

For Two Years.

THOS. F. TEMPLE, <i>Chairman</i> ,	JOHN P. DORE.
LEVI L. WILLCUTT,	BENJ. F. CAMPBELL.

For Three Years.

JAMES G. DAVIS,	M. C. CURRY,
DANIEL A. MADDEN,	THOMAS SPROULES.

FREDERIC W. LINCOLN, *Treasurer*.
BENJAMIN PETTEE, *Secretary*.

The Board meet on the first Wednesday of every month at their office in Charity Building.

The Overseers of the Poor are likewise incorporated as a Board of Trustees of John Boylston's and other charitable funds, left for the assistance of persons of good character, and advanced age, "who have been reduced by misfortune to indigence and want."

COMMITTEES.

Investigation and Relief.

Messrs. Temple, Ring, Dore, I. T. Campbell, Willcutt, Scott, and Curry.

Finance and Accounts.

Messrs. Pickering, Davis, and Madden.

Employments and Settlements.

Messrs. Scott, B. F. Campbell, and Sproules.

Supplies.

Messrs. Willcutt, Davis, and Ring.

Temporary Home and the Lodge for Wayfarers.

Messrs. Temple, Ring, and Dore.

Building.

Messrs. Pickering, Scott, B. F. Campbell, and Sproules.

*Real Estate.*Chairman of the Board, Chairman of Finance Committee,
and the Treasurer.*Burials.*

Messrs. Willcutt, Davis, and Curry.

Medical.

Messrs. I. T. Campbell, B. F. Campbell, and Madden.

OVERSEERS OF THE POOR WERE FIRST CHOSEN
IN BOSTON IN 1691.

MEMBERS OF THE BOARD FROM ITS REORGANIZATION IN 1864.

Allen, Ira, 1868 to 1875 (died Aug. 29).
 Amory, Thomas C., 1864 to April, 1883.
 Atkins, Ebenezer, 1864 to Dec. 31, 1867 (died).
 Buckley, Joseph, 1864 to 1875.
 Blasland, Thomas, 1866 to 1873 (died Sept. 5).
 Bailey, Joseph T., Nov., 1866, to 1871.
 Bigelow, Alanson, 1875 to April, 1881.
 Crane, P. M., 1870 to 1882 (died Aug. 13.)
 Cruft, Samuel B., 1871 to 1877.
 Campbell, Isaac T., 1873 to date.
 Curtis, George, 1876 to Sept., 1878.
 Campbell, B. F., Oct., 1882.
 Curry, M. C., 1883.
 Dore, John P., 1879 to date.
 Davis, James G., 1880 to date.
 Fabyan, George, 1869 to 1874 (died May 25.)
 Gorman, William, 1877 to 1880 (died Jan.)
 Gargan, Thomas J., 1874 to 1875.
 Griffin, Martin, 1864 to 1869.
 Hale, George S., 1865 to 1871.
 Hull, Liverus, 1874 to April, 1883.
 Lincoln, F. W., May, 1867, to April, 1878.
 Little, James L., Nov., 1865, to Nov., 1876.

Lothrop, Loring, 1864 to April, 1870.
 Lawrence, William R., 1864 to Nov., 1865.
 Madden, Daniel A., 1883.
 McLean, Charles R., 1868 to 1871.
 Newmarch, S., 1864 to 1865.
 O'Brien, John, 1871 to 1874.
 Parker, F. E., 1864 to 1875.
 Prescott, Washington L., 1875 to Dec., 1878.
 Pickering, H. W., 1875 to date.
 Parker, Augustus, Nov., 1878, to April, 1880.
 Ring, Thomas F., Nov., 1878, to date.
 Richards, Henry L., 1877 to Aug., 1878.
 Richards, Joel, 1864 to 1866.
 Scott, John A., April, 1881, to date.
 Spooner, William B., 1864 to 1868.
 Sweetser, John, Dec., 1878, to April, 1879.
 Stackpole, Stephen A., 1880 to April, 1883.
 Sproules, Thomas, 1883.
 Temple, Thomas F., 1870 to date.
 Warren, John W., 1864 to April, 1866.
 Winthrop, Robert C., 1864 to May, 1867.
 Willcutt, Levi L., 1878 to date.

Chairmen.

Winthrop, Robert C., July, 1864, to May, 1867.
 Lincoln, F. W., June, 1867, to April, 1878.
 Temple, Thomas F., April, 1878, to Dec. 31, 1878, and
 from April, 1881.
 Amory, Thomas C., Jan., 1879, to April, 1881.

Treasurers.

Warren, John W., July, 1864, to Jan., 1865.
 Norcross, Otis, Jan., 1865, to Jan., 1876.
 Higginson, George, 1876 to 1878.
 Lincoln, F. W., April, 1878, to date.

Secretaries.

Pratt, John, July, 1864, to Nov., 1874 (died).
 Pettee, Benjamin, Nov., 1874, to date.

Charity Building contains the following offices: —

Basement Rooms.

City Physician	Nos. 3 and 4
Homœopathic Dispensary	No. 5
United Hebrew Benevolent Association	" 13
Room for Society and Committee Meetings	" 14

First-Story Rooms.

Overseers of the Poor	Nos. 15 to 20
State Aid Paymaster	“ 21 to 24
Industrial Aid Society	“ 25 to 28

Second-Story Rooms.

Boston Provident Association . .	Nos. 32, 33, 38, and 40
Boston Ladies' Sewing Circle . .	Nos. 30 and 31
Ladies' City Relief Agency . . .	“ 36 and 37
German Emigrant Aid Society . .	No. 39

Third-Story Rooms.

Associated Charities	No. 41
Ward 6 Conference Associated Charities . .	“ 47
Coöperative Society	“ 48
Ward 8 Conference, Associated Charities . .	“ 49
Ward 7 Conference, Associated Charities . .	“ 51

In addition to the above, two societies hold their monthly meetings, here, viz. : The Young Men's Benevolent Society and the Boston Police Relief Association.

APPENDIX.

APPENDIX.

OFFICIAL ACTION OF THE BOARD IN REGARD TO THE DEATH OF DR. PHINEAS M. CRANE.

At a meeting of the Board of Overseers of the Poor, held Sept. 6, 1882, the Chairman notified the Board of the death of one of its oldest members, Dr. Phineas M. Crane, who passed away soon after the last meeting of the Board, and the following resolutions were unanimously adopted:—

Whereas, A wise Providence has decreed, that, since the last monthly meeting of the Board, one of our number, Dr. Phineas M. Crane, should be transferred by death from the scene of his earthly labors to enter upon the undisclosed experiences which await us all in the life beyond the grave; therefore:

Resolved, That, in the departure of our late associate, we mourn the loss of one of our most venerable and respected members, who for a period of upwards of twelve years has assisted us by his counsels, and cheered us by his genial presence; whose tender sympathies for the poor were united with wise measures for their relief, and whose faithful discharge of the various official duties imposed upon him in this department of the public service will ever render his memory honored, not only by ourselves, but by those who shall succeed him and us in the administration of its affairs.

Resolved, That, while we deplore his loss in those special labors in which we have mutually been engaged, we cannot fail to remember his efforts in the many other important concerns which have marked his active career. In these he has met to a full measure the requirements of a public-spirited citizen, and consistent Christian man. Becoming a resident, nearly forty-five years since, of the Island ward, then containing but a small population, he not only witnessed its marvellous growth, but did a large share towards the development of its industrial, educational, and religious interests. With clean hands and efficient service he contributed, by personal influence or pecuniary means, to every cause having for its object the progress and happiness of the community of which he formed a part. His death is not only a local calamity, but a public loss.

Voted, That a copy of the foregoing resolves be transmitted to the widow and family of our late associate, with the assurance, on the part of the Board, of its deep sympathy in the affliction which they have been called upon to sustain by the death of the head of their household.

Voted, That the chairman be requested to notify the City Council, through His Honor the Mayor, that a vacancy exists in

the Board of Overseers of the Poor, caused by the decease of Dr. Phineas M. Crane, of East Boston.

OFFICE OF THE OVERSEERS OF THE POOR.

BOSTON, Sept. 7, 1882.

To His Honor SAMUEL A. GREEN, *Mayor of the City of Boston*: —

SIR, — It becomes my official duty, as Chairman of the Board of Overseers of the Poor, to notify the City Council, through you, that a vacancy exists in the Board, occasioned by the death of Dr. Phineas Miller Crane, of East Boston.

Dr. Crane was born in Canton, in this State, November 28, 1804, and graduated from Harvard College in 1824. Adopting the practice of medicine and surgery as a profession, he settled in East Boston in 1838. While eminent in and devoted to his special calling, he also became identified with many important interests, and held several responsible positions in the local organizations of that part of the city.

In April, 1870, he took his seat as a member of our Board, and by successive reëlections of the City Council, continued in the discharge of his duties until his death. He died at his residence on Sunday morning, August 13th, after an illness of a few hours, at the age of seventy-seven years and nine months.

Enclosed is the action of the Board at the first regular meeting following his decease.

I have the honor to remain,

Respectfully yours,

THOMAS F. TEMPLE,

Chairman.

At a meeting of the Board of Aldermen, held Sept. 11, 1882: —

A communication was received from the Mayor, transmitting documents from the Overseers of the Poor, and announcing the death of Dr. Phineas Miller Crane, who has been a member of said Board since 1870.

The Mayor says: Dr. Crane was a physician of high standing, and formerly in extensive practice. His large experience in the medical profession, and his kindness towards the poor, made him a most valuable officer.

His death will be sincerely and widely mourned.

I respectfully recommend that his successor be chosen at an early day.

A BRIEF ACCOUNT OF THE ORGANIZATIONS IN CHARITY BUILDING.

STATE AID.

Payments of State Aid to disabled soldiers and sailors and their families, and the families of those who lost their lives in the late war, and who have died, since the war, of injuries received or disease contracted during service, still continue as in former years. These payments are made monthly under the provisions of Chap. 30, Public Statutes, at the State Aid office, in sums from \$1 to \$15, to each family, by a paymaster appointed by the City Treasurer, the amount allowed each person being decided by the Committee on State Aid, consisting of three aldermen. All recipients of aid must be worthy persons, and in necessitous circumstances.

During the year 1882, about 1,500 families received assistance, and the sum paid was \$93,569.

The Committee on State Aid for 1883 is: Aldermen Lucius Slade, Benjamin F. Anthony, William J. Welch.

R. Peterson, Jr., *Paymaster*; Elizabeth Jones, *Assistant*.

CITY PHYSICIAN.

The City Physician has an office in the building, which is open two hours each week day. The following table shows the work performed here: —

Vaccinated	1,402
Certificates of vaccination given	214
Firemen examined	101
Injuries investigated	6

J. H. McCOLLOM, M.D., *City Physician*.

MORTON PRINCE, M.D., *Assistant*.

BOSTON PROVIDENT ASSOCIATION.

ORGANIZED, 1851. INCORPORATED, 1854.

The organization of this Association extends over the city proper, South and East Boston, which are divided into 12 districts, which are subdivided into sections, for each of which a visitor is appointed, whose duty it is to attend to every applicant for relief within its limits.

This Association makes no discrimination on account of creed, color, or nationality.

The payment of not less than \$1 constitutes membership; this plan is adopted to secure the coöperation of every citizen. Tickets will be furnished to members at any time, on application at the Central Office. Subscriptions may be sent to the Treasurer, or to the General Agent. Communications should be addressed to the General Agent.

The office hours are from 9 A.M. to 5 P.M.; in summer from 9 till 1 only.

The annual meeting is held on the second Wednesday in October. 2,650 families have been aided during the year. The amount expended by the visitors:—

For coal and groceries	\$4,920
“ garments, shoes, etc.	3,160
Estimated value of donated goods	2,100
	\$10,180

MEMORANDUM OF GOODS DELIVERED.

4,200 garments.	
2,250 pairs boots and shoes.	
3,900 yards cotton, prints, and flannels.	
252 blankets and comforters.	
513 pairs hose.	
86 sheets.	
50 pillow-cases.	
55 hats and caps.	
Many smaller articles.	
Expended since organization in charities	\$445,000

The officers of the society are:—

President. — Hon. Charles R. Codman.

Vice-Presidents. — Rev. S. K. Lothrop, D.D., Hon. Martin Brimmer, Francis Minot, M.D., Hon. Francis E. Parker, Chas. D. Homans, M.D.

Executive Committee. — M. C. Greene, M.D., Henry S. Grew, Frank Wells, M.D., Hon. Chas. R. Codman, Chas. B. Belt, M.D.

Auditor. — F. C. Gray.

Secretary. — William Hedge.

Treasurer. — Edward Jackson.

General Agent. — Edward Frothingham.

Assistant. — Miss A. S. Bradford.

INDUSTRIAL AID SOCIETY.

ESTABLISHED 1835.

Room 25, Charity Building, Chardon Street, Boston.

President. — Hon. Thomas C. Amory.

Vice-Presidents. — Rev. Edward E. Hale, Dea. Andrew Cushing, Rev. Edward J. Gerry, Dr. Geo. F. Bigelow.

Treasurer. — William P. Kuhn, 40 State street.

Directors. — Hon. Thos. C. Amory, Dr. Geo. F. Bigelow, Charles L. Heywood, Fred'k H. Nazro, Rev. Edward E. Hale, William P. Kuhn, Robert Treat Paine, Jr. Chas. W. Dexter, Dea. Andrew Cushing, Rev. Sam'l B. Cruft, Erving Winslow, William B. Fowler, Rev. Edwin J. Gerry, Rev. Jos. E. Barry, Thos. F. Ring, Alexander Cochrane, John Adams.

Agent. — Chas. T. Canfield.

Asst. Agent. — Henry Peterson.

Asst. in Women's Department. — Miss N. J. Clark.

The Industrial Aid Society represents the earliest organized attempt in Boston to counteract poverty through the only natural preventive, the promotion of industry. It was founded for the purpose of helping the poor, and preventing pauperism by finding employment, and encouraging, aiding, and elevating labor.

During the twenty years from 1860 to 1880 it furnished employment to 54,349 persons, and during the past two years to 5,416. It transfers families and laborers, who are unemployed in the city, to places where they can earn a support, and sends a newly arrived emigrant to the field where his service is needed and will be rewarded.

It seeks in all ways to improve the quality of labor and elevate the character of the laborer, while striving to find employment for every one wanting work. Its services are free to employers and employed, and it assists both with the common purpose to put the proper persons in the proper places. Its record will show that its work is valuable to the tax-payer, the public, and the poor, and it appeals to all whom it benefits for support. It invites calls for labor in every department, and asks contributions from all who are disposed to aid.

For laborers address, Chas. T. Canfield, Agent. Direct contributions or subscriptions to Wm. P. Kuhn, Treasurer, 40 State street, Boston.

BOSTON SEWING-CIRCLE.

The Boston Sewing-Circle, established in 1862, supplied an immense number of articles of the most excellent quality to the Sanitary Commission till the close of the war. Since that time, continuing its simple and efficient organization, and supplied, as before, by the subscriptions of liberal friends, it has given work to hundreds of poor women, and by their well-paid labor has provided large quantities of clothing, of good materials. This has been sent to charitable societies for distribution, and subscribers who have desired it have received articles of clothing for those they knew to be deserving. The managers of the circle have, every week, arranged and labored for this admirable work, generously aided and sustained by fellow-workers, — all volunteers, and mostly gathered from the different churches of the city. During the past year the Boston Sewing-Circle has received \$2,380, with which it purchased material to cut 10,200 garments, all made by poor women. The expenses of the society are merely the bill for

heating the rooms, — a small sum paid to a woman for taking care of the rooms, and \$15,00 paid to expresses for delivering bags of clothing to different charitable societies.

OFFICERS OF THE SOCIETY.

President. — Miss I. E. Loring.

Vice-Presidents. — Miss A. Wigglesworth, Miss S. Williams.

Treasurer. — Mrs. J. C. Hooker.

LADIES' CITY RELIEF AGENCY.

Owing to the death of Miss Harmon, the Agent, no report can be given of the work of this society.

GERMAN AID SOCIETY.

INCORPORATED, 1848.

The whole number of applicants for assistance during the year has been 851.

Of these, 270 were married, 581 single; 160 were emigrants; 424 were residents of this city, and among these 168 widows.

The following aid was rendered:—

Situations procured for	128
Board and lodgings paid for	98
Groceries, etc., paid for	167
Fuel furnished to	51
Rent paid for	57
Shoes and clothing furnished to	18
Railroad tickets furnished to	122
In other ways	210

The total amount expended during the year was \$1,425.03.

The officers of the society are:—

President. — Dr. F. H. Krebs.

Vice-President. — C. Eberhard.

Secretary. — G. J. Walther.

Treasurer. — Werner Malsch.

Agent. — M. Kallmann.

Directors. — Ph. Krim, L. Schlegelmilch, Dr. C. Wesselhoeft, L. Weissbein, C. V. Jaeger, Jos. Gahm, S. B. Schlesinger, E. Sterr, Office, Charity Building, Room 39. Office hours, 10 to 12 A.M.

HOMCEOPATHIC MEDICAL DISPENSARY.

This institution was chartered by the State in 1856, and opened to the public in April, 1857. It occupied at first a small room in Tremont Temple, and was sustained for more than two years by

the voluntary daily attendance of a number of physicians. In March, 1859, a fair was held in Music Hall to raise money for a permanent fund, and with the money thus secured, and fortunately invested, the Dispensary has been supported, and the funds have increased so that up to the present time the public have not been called upon for any additional contributions. The number of patients who applied was at first very small, only 195 in the first year, and 218 in the second; but they steadily increased, and in 1873, 1,062 patients were provided for. In 1870 the house 14 Burroughs place was purchased for its use, and is still occupied by the Dispensary. The establishment of the Medical School in connection with Boston University, and a branch dispensary in its building in East Concord street, and also another opened at the West End in 1875, have added largely to the number treated. In 1875 this amounted to 3,650 patients, with 9,144 prescriptions; and in 1882, 11,382 patients with 30,545 prescriptions. During the past year 1,764 were treated at their homes, and received 6,804 visits. Since its beginning, the Dispensary has treated 93,971 persons, and furnished 239,180 prescriptions and medicines.

OFFICERS FOR 1883.

President. — Hon. Otis Clapp, 3 Beacon street.

Vice-President. — Chester Guild, Esq., Manufacturers Bank.

Treasurer. — J. W. Clapp, M.D., 3 Beacon street.

Secretary. — I. T. Talbot, M.D., 66 Marlborough street.

Trustees. — Hon. Jacob Sleeper, 14 Ashburton place; Edw. P. Brown, Esq., 74 Equitable Building; Henry C. Angell, M.D., 16 Beacon street; George H. Leonard, 41 India street; Alonzo Boothby, M.D., 19 Joy street; Herbert C. Clapp, M.D., 11 Columbus Square; Isaac B. Mills, 160 State street; Frank W. Stearns, 131 Tremont street.

Executive Committee. — Messrs. Guild, Boothby, and Stearns.

Superintendent. — H. C. Clapp, M.D.

Pharmacist. — J. W. Clapp, M.D.

WEST-END BRANCH.

This branch was opened, on Leverett street, in 1875. It was afterwards moved to Causeway street, and in March, 1877, to its present quarters in the Charity Building. It is open daily, Sundays excepted, from 10 to 12 o'clock.

For year ending April, 1883: —

	New Patients.	Prescriptions.
Men's department	1,458	3,442
Women's department	758	1,765
Visits outside	142	657
Total	2,358	5,864

Executive Committee. — Dr. A. Boothby, Dr. F. B. Clock, Dr. A. L. Kennedy.

Physicians. — Boothby, Clock, Kennedy, Haynes, Austin, Smith, and Hammond.

BOSTON POLICE RELIEF ASSOCIATION.

ORGANIZED JANUARY 13, 1871.

Statement for the year 1882.

Number of members at commencement of year	465
New members joined during the year	62
Number who have died or left the Association during the year	19
Present membership	508
Total receipts during the year	\$14,935 78
Paid sick benefits	\$3,962 00
“ on death of 3 members	1,500 00
“ “ 9 members’ wives	900 00
Investments	7,008 33
Expenses	546 71
	\$13,917 04

197 members have received sick benefits during the year; the average amount to each member being \$20.

OFFICERS FOR 1883.

President, George F. Goold.*Vice-President*, James T. Comee.*Clerk*, George A. Walker.*Treasurer*, Thomas Ryan.

Finance Committee. — Henry O. Goodwin, Charles W. Hunt, Albion Adams.

Directors. — Nathan A. Simonds, Division No. 1; Albion Adams, Division No. 2; James M. Ellis, Division No. 3; Patrick Houghton, Jr., Division No. 4; Charles H. Dolbeare, Division No. 5; Henry O. Goodwin, Division No. 6; Joseph B. Blanchard, Division No. 7; George F. Goold, Division No. 8; Charles W. Hunt, Division No. 9; James W. Twombly, Division No. 10; Michael Merrick, Division No. 11; David M. Pierce, Division No. 12; George A. Walker, Division No. 13; James T. Comee, Division No. 14; William H. Brown, Division No. 15; Patrick A. Mahoney, Superintendent’s Office.

THE CO-OPERATIVE SOCIETY OF VISITORS AMONG
THE POOR OF BOSTON.

ORGANIZED 1874. INCORPORATED 1877.

The workroom maintained by this society is based upon a system of personal visitation which insures a thorough understanding of the characters and circumstances of those it is designed to help.

A separate organization of visitors has been rendered unnecessary by its intimate connection with the branch of the Associated Charities working in Ward 7.

The sewing given is made a test of willingness to work, and a means of imparting instruction and fostering habits of industry and thrift. The assistance supplied is strictly temporary and educational.

Special attention is given to obtaining a good quality of work and the garments made are readily sold to poor women, at reasonable prices.

A sewing-class for young girls is held weekly.

OFFICERS OF THE SOCIETY.

President. — Mrs. James Lodge.

Vice-President. — Mrs. James T. Fields.

Secretary. — Mrs. B. S. Calef.

Treasurer. — Mr. B. S. Calef.

Superintendent. — Mrs. Jane Pitblado.

The workroom of the society, Room 48, Charity Building, is open daily from 10 A.M. to 2 P.M. Saturdays, from 10 to 12.

THE ASSOCIATED CHARITIES OF BOSTON.

ORGANIZED 1879. INCORPORATED 1881.

The objects of this society are : —

To secure the concurrent and harmonious action of the different charities of Boston, in order

To raise the needy above the need of relief, prevent begging and imposition, and diminish pauperism ;

To encourage thrift, self-dependence, and industry through friendly intercourse, advice, and sympathy, and to aid the poor to help themselves ;

To prevent children from growing up as paupers ;

To aid in the diffusion of knowledge on subjects connected with the relief of the poor.

The management of the society is vested in a Board of twenty-two Directors. The Chairman of the Overseers of the Poor, the President of the Boston Provident Association, the President of the Society of St. Vincent de Paul, and the President of the Roxbury Charitable Society, are *ex-officio* Vice-Presidents of the Society, and members of the Central Board.

The office of the Board is at Room 41, Charity Building, where, under its system of registration, information concerning the relief given and the character of the beneficiaries of forty-seven benevolent agencies and many individuals is received in confidence, recorded and exchanged. Only the Registrar and the clerks under her direction are allowed to examine the records. Inquiries from persons known to be *charitably interested* in any family are promptly answered. Over 8,000 families were registered last season, and the number increases from year to year, as the benevolent learn the value of this work, and the care taken to guard its privacy. Robert Treat Paine, Jr., is President of the society, George A. Goddard, Secretary, Darwin E. Ware, Treasurer, and Miss Zilpha D. Smith, Registrar and Assistant Treasurer.

Under the general supervision of the Directors are fourteen District Conferences, three of which have offices in the Charity Building. Each Conference is composed of all the charity workers of the

District, including the volunteer friendly visitors of the Associated Charities. These visitors now number, in the whole city, between six and seven hundred, and visit nearly fourteen hundred families.

It is the duty of the Conference to see that every application for aid from persons living within the district is thoroughly investigated; to study how applicants for relief can be raised into independence, and to make them self-supporting whenever possible; to obtain aid for deserving applicants unable to earn support from the appropriate sources; and to organize for these purposes a large corps of visitors, so that only a small number of cases shall be assigned to each visitor.

The Conference of Ward 6 meets on Tuesdays, at 3 P.M., and its agent, Miss Annie E. Gifford, is at Room 47 daily, from 11 to 1.

The Conference of Ward 7, Mrs. James T. Fields, President, has its office in Room 51, where the agent, Miss Frances A. Smith, can be seen daily between 12 and 2. The Conference meets on Wednesdays at 3.30 P.M.

The Conference of Ward 8, Dr. Charles P. Putnam, President, meets on Mondays at 3.30 P.M. The agent, Miss Harriet F. Stanley, is at the office, Room 24, Charity Building, daily from 10 to 12.

The work of the Conference and its visitors is as varied as the character and circumstances of the families which claim its care: — searching out relatives and securing their help; moving families to mill-towns where work is plenty; securing proper medical attendance or hospital treatment for the sick; fostering a love for good air, cleanliness, and sunlight, resulting in better and more orderly homes; seeing that children, as they grow up, learn some skill; and in all and every way leading on to self-reliant, independent lives, with more of pleasure, beauty, and love. In some cases severe measures are necessary, and here the coöperation of the police and the courts has been of great value. The results have been most encouraging, though there is still much to learn, and more workers are needed.

Each month, from November to May, General Conferences are held in the Hall of the Charity Building, where the care of neglected children, the condition of working-women, postal savings-banks, and other subjects related to the prevention or cure of poverty, are publicly discussed.

UNITED HEBREW BENEVOLENT ASSOCIATION.

Statistics from January, 1882, to January, 1883.

Membership	300
Income from yearly dues	\$1,500
From private donations	2,500
	—————
	\$4,000

Number of applicants during the year	264
Comprising adults	196
" children	556
" non-resident	34
Expended during the year	\$3,958 38
— consisting of fuel, groceries, and money.	

It is the aim of the Association to make applicants self-sustaining; we have families who receive from \$50 to \$300. The Association is managed by a Board of Directors, as follows:—

President. — J. H. Hecht.

Vice-President. — L. Pickert.

Treasurer. — Charles Morse.

Recording Secretary. — B. J. Schoeninger.

Financial Secretary. — E. E. Norton.

Agent. — Rev. S. Schindler.

Chairman of Board of Directors. — A. Shuman.

Directors. — L. Hecht, Isaac Engel, Isaac Rosnosky, Sol. Friedman, M. Ehrenreich, N. Rosenfeld.

Office, Room 13, Charity Building.

Office Hours: Mondays, Wednesdays, and Fridays, from 1 to 3 P.M.

YOUNG MEN'S BENEVOLENT SOCIETY.

This society was organized in 1831 by a few young men, who wished to alleviate, in some degree, human suffering, and, at the same time, contribute to their own improvement and happiness. It has somewhat changed its original character, although efforts have always been made to secure the younger class of our citizens as members, and especially to use them in its distribution of charity to the poor. Its annual membership has been reduced within a few years, the more recent organizations of young men, like the "Christian Union" and the "Christian Association," having, in some respect, taken its place.

Its means are chiefly obtained by donations from friends, annual assessments, and a small fund, which is rapidly being reduced by the calls upon it. Its field of work is generally confined to the city proper, and the principal class of its beneficiaries are mostly Boston people, whose self-respect deters them from calling upon the city or other large charitable organizations for assistance. Its almoners visit the families they aid, and in other ways minister to their comfort. It usually assists about 250 families, and its annual expenditures average \$1,500. It does not require a permanent office, but holds its monthly and special meetings in the Charity Building.

OFFICERS OF THE YOUNG MEN'S BENEVOLENT SOCIETY.

President. — Thomas Gaffield, 54 Allen street.

Vice-President. — W. E. Boardman, M.D., 233 Marlboro' street.

Secretary. — J. R. Reed, 68 Devonshire street.

Treasurer. — Frederic W. Lincoln, West Chester Park, Storage Warehouse.

Auditors. — Arthur Wm. Hobart, Martin L. Bradford.

Standing Committee. — District No. 1, Edward MacDonald, 54 Prince street; District No. 2, John H. Krey, 14 Fleet street; District No. 3, Emery Souther, Green street, cor. Lyman st.; District No. 4, Alexander W. Freeman, 26 Prince street; District No. 5, Thomas Gaffield, 54 Allen street; District No. 6, Edward C. Boyden, cor. Joy and Myrtle streets; District No. 7, J. R. Reed, 68 Devonshire street; District No. 8, Francis H. Brown, M.D., 48 Congress street; District No. 9, J. Foster Bush, M.D., 9 Park square; District No. 10, Geo. F. Bigelow, M. D., 334 Shawmut avenue; District No. 11, Joseph B. Locke, 327 Shawmut avenue; District No. 12, Benj. L. M. Tower, 113 West Concord street.

CITY OF



BOSTON.

REQUEST

FOR

AN ADDITIONAL APPROPRIATION

FOR

SCHOOL-HOUSE SITE, MAIN STREET,
CHARLESTOWN.

IN COMMON COUNCIL, June 7, 1883.

The Committee on Public Education beg leave to represent that the appropriation of \$11,000, made the present year by the City Council for a primary school-house site, Main street, Charlestown, is not sufficient for the purpose, and they respectfully ask that it may be increased by an additional appropriation of \$1,085.

For the Committee,

WILLIAM F. WHARTON.

IN COMMON COUNCIL, June 7, 1883.

Referred to the Committee on Public Education.

JAMES J. FLYNN,
President.

CITY OF



BOSTON.

ELEVENTH ANNUAL REPORT

OF THE

BOARD OF HEALTH

OF THE

CITY OF BOSTON,

FOR THE FINANCIAL YEAR 1882-1883.

OFFICE OF THE BOARD OF HEALTH,
32 PEMBERTON SQUARE, BOSTON, May 1, 1883.

To the Honorable the Mayor and City Council of Boston:—

In accordance with the city ordinances the Board of Health herewith respectfully submits its eleventh annual report, for the year ending April 30, 1883.

SANITARY CONDITION OF THE CITY.

The sanitary condition of the city for the past year has been altogether satisfactory. The death-rate for the year, according to statistics gathered at this office, is lower than for several years. There has been a considerable decrease in the number of deaths from preventable causes; there has been nothing approaching an epidemic, and the rate of infant mortality, which eminent authorities regard as the fairest test of the comparative healthfulness of a city, is below the average for the past ten years. A variety of interesting tables, showing these and other important facts relating to the city's sanitary condition, is contained in this report. The principal point to be aimed at in all statistics is relia-

bility. Of late there appears to have been a growing tendency on the part of the authorities of many cities and towns to make their death-rate appear lower than it really is. The rate is calculated in nearly every instance on the estimated population, and, as this standard must always be in a measure arbitrary, it is not infrequently carried to an extreme, and is founded on such a hypothetical basis as to make vital statistics untrustworthy and accepted with not a little reserve and suspicion. On the other hand, those who base their calculations on a census that has been taken some years previous, with a rapid growth of population, are equally at fault.

The Board of Health estimates the population of Boston on what is considered the most reliable basis, viz. : from the assessed polls on males over twenty years of age based on a review of twenty-five years. From this method it is calculated that the population of Boston, in the middle of the year 1882, was 410,376. The number of death certificates presented for approval during the year was 8,995, making a death-rate of 21.91 each thousand of the estimated population. This is a less rate than that of 1881, which was 22.67, and still less than that of 1880, which was 23.52. If we compare also the rate of the past year with the average rate of the past eighteen years, which was 24.30, a still more gratifying result is obtained.

The total number of deaths from zymotic diseases, notwithstanding the increase of population, has been less than during either of the two previous years, and the percentage to the total mortality is the lowest since 1874. In 1880 there were 2,321 deaths from zymotics; in 1881 the number was 2,423; in 1882 it was 2,276. This is a most gratifying exhibit, and speaks well for the comparative sanitary condition of the city. The most fatal of the zymotic diseases is diphtheria, which the Board has made every effort to combat. Its decrease over the two previous years is most marked, not only in the number of deaths, but in the percentage of actual deaths to the cases reported. In 1880 the number of deaths from this cause was 588, in 1881 the number was 601, and last year the number was reduced to 458.

The city has been comparatively free from small-pox during the year, having had but eight deaths from this cause, out of twenty-four reported cases; while several cities in this country have exceeded 1,000 deaths with five times the number of cases. In New York there were 259 deaths from small-pox during the year; in Philadelphia there were 228 deaths; in Chicago, 1,292 deaths; in Cincinnati, 1,249 deaths, and 3,296 cases reported; in Baltimore, 551 deaths; in New

Orleans, 268 ; and in Pittsburg, 300 deaths, and 1,026 cases, reported.

So few cases in our own city, with so much intercourse with other great centres of population where the disease has been so alarmingly prevalent, is due to the efficient legislation under which the Board of Health is enabled to act, prompt measures for isolation, thorough vaccination, and careful fumigation of infected premises and clothing.

The decrease in the deaths of children under five years of age is highly satisfactory when the number of deaths of the past year is compared with the average number of the previous ten years, or with the years 1880 and 1881. In the former year the number of infant deaths was 3,349, and in the latter 3,314, while in the past year the number was 3,151. The percentages of the seven years previous show a steady and perceptible decrease.

MORTALITY.

The number of death certificates presented at this office for approval during the year ending Dec. 31, 1882, exclusive of still-births, was 8,995. The number of still-births whose certificates were presented for approval for the same period was 518.

The following tables, which pertain to our own city, are compiled from the records of this office, which began in 1875, and from those of the City Registrar prior to that date. Those which pertain to other American and foreign cities, and which are used here for convenient reference and comparison, are made from the official returns of the officers in charge of the vital statistics in the several cities represented.

Table I. Total Deaths, Still-births, and Deaths from Zymotic Diseases, for the last Ten Years, with Percentages.

YEARS.	Total deaths exclusive of still-births.	Still-births.	Total Zymotics.	Diphtheria and Croup.	Scarlet Fever.	Typhoid Fever.	Cerebro-Spinal Fever.	Whooping-cough.	Measles.	Diarrhoeal Diseases.	Small-pox.	Percentage of Zymotic deaths to total mortality.	Rate of still-births per 1,000 inhabitants.
1873	7,869	515	2,626	119	474	243	216	33	16	925	302	33.37	1.76
1874	7,812	642	1,899	121	269	202	35	108	41	940	2	24.30	2.19
1875	9,060	541	2,722	631	534	227	41	41	65	989	1	30.02	1.58
1876	8,253	485	2,439	720	458	145	13	59	2	827	2	29.55	1.41
1877	7,316	471	1,890	471	104	156	24	88	2	913	4	25.83	1.37
1878	7,636	441	1,980	569	68	120	19	88	145	816	..	25.91	1.28
1879	7,398	453	1,935	545	149	119	15	112	2	772	..	26.15	1.24
1880	8,531	443	2,321	774	33	154	8	94	49	1,003	1	27.20	1.22
1881	9,016	513	2,423	802	35	207	16	77	108	870	6	26.87	1.29
1882	8,995	518	2,276	575	75	212	24	92	25	951	8	25.30	1.26

Table II. Total Number of Deaths under Five Years, Five Years and over, for the last Ten Years, with Percentages to the total Mortality.

YEARS.	Total Deaths.	Five Years and over.	Under Five Years.	Percentages.	
				Five Years and over.	Under Five Years.
1873	7,869	4,580	3,289	58.20	41.79
1874	7,812	4,454	3,358	57.01	42.98
1875	9,060	5,088	3,972	56.15	43.84
1876	8,253	4,722	3,531	57.21	42.78
1877	7,316	4,334	2,982	59.24	40.76
1878	7,636	4,630	3,006	60.76	39.36
1879	7,398	4,593	2,805	62.08	37.91
1880	8,531	5,182	3,349	60.74	39.25
1881	9,016	5,702	3,314	63.24	36.75
1882	8,995	5,844	3,151	64.96	35.03

Table III. — Deaths During the Year 1882.

By Sex, Condition, Color, Nativity, Parentage, and Season.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Total number of deaths . .	747	656	701	813	744	655	841	891	757	721	698	771	8,995
<i>Sex :</i>													
Males	342	332	340	388	388	328	440	455	380	381	334	384	4,492
Females	405	324	361	425	356	327	401	436	377	340	364	387	4,503
<i>Condition :</i>													
Married	237	204	213	256	237	182	181	211	217	237	220	223	2,618
Single	395	363	403	432	406	401	569	594	471	401	381	451	5,267
Widows	84	50	65	92	55	50	61	63	45	53	70	68	756
Widowers	27	34	19	25	35	21	23	15	19	26	21	21	286
Unknown	4	5	1	8	11	1	7	8	5	4	6	8	68
<i>Color :</i>													
Whites	720	640	683	793	731	640	819	878	741	704	682	756	8,787
Colored	27	16	18	20	13	15	22	13	16	17	16	15	208
<i>Nativity :</i>													
United States	483	393	444	526	457	424	605	624	501	494	441	502	5,894
Ireland	172	159	179	190	178	149	135	167	162	145	173	166	1,975
Scotland	1	6	2	6	7	4	3	4	5	0	3	5	46
England	16	17	12	13	18	13	19	20	20	11	7	16	182
Germany	14	16	10	12	16	6	8	12	10	11	16	10	141
British Provinces	34	39	42	39	35	26	50	32	32	34	39	51	453
Other Countries	16	20	10	15	17	19	10	16	9	14	11	9	166
Unknown	11	6	2	12	16	14	11	16	18	12	8	12	138
<i>Parentage :</i>													
American	198	161	181	221	179	159	206	212	181	207	191	210	2,306
Irish	308	263	298	314	300	254	288	324	290	286	293	290	3,508
Scotch	3	6	5	10	12	6	5	4	6	3	9	10	79
English	26	14	18	12	20	20	27	26	23	10	10	21	227
German	26	23	23	24	24	15	27	29	19	17	26	22	275
British Provinces	33	30	39	46	37	28	46	49	46	30	30	43	457
Mixed	54	51	48	57	50	57	85	101	74	55	48	68	748
Other Countries	41	58	44	54	60	48	65	74	42	57	43	58	644
One parent known . . .	10	20	19	17	17	31	41	26	30	13	14	9	247
Unknown	48	30	26	58	45	37	51	46	46	43	34	40	504

Table IV.—Deaths from Principal Zymotic Diseases.

	Total deaths from each cause.	Percentage of each cause to total mortality.	Deaths per 1,000 inhabitants.	Total Deaths per sex.		Total deaths per sex under five years.		Total deaths un- der five years.	Percentage of each cause un- der five years to total mortality.
				M.	F.	M.	F.		
Small-pox	8	.88	.019	3	5	1	2	3	.033
Measles	25	.277	.060	11	14	10	10	20	.222
Scarlatina	75	.833	.182	33	42	21	27	48	.533
Diphtheria	458	5.091	1.116	219	239	133	134	267	2.968
Croup	117	1.300	.285	68	49	60	47	107	1.189
Whooping-cough	92	1.022	.224	43	49	42	46	88	.978
Typhoid Fever	212	2.356	.516	98	114	3	4	7	.077
Enteritis	56	.622	.136	26	30	19	13	32	.355
Erysipelas	40	.444	.097	23	17	7	3	10	.111
Puerperal Fever	75	.833	.182	. . .	75	. . .	. . .	. . .	
Carbuncle	4	.044	.009	4	. . .	1	. . .	1	.011
Dysentery	83	.922	.202	42	41	14	16	30	.333
Diarrhœa	231	2.568	.562	117	114	101	88	189	2.101
Cholera Morbus	46	.511	.117	29	17	6	1	7	.077
Cholera Infantum	506	5.625	1.233	265	241	264	240	504	5.603
Cerebro-spinal Fever	24	.266	.058	15	9	7	6	13	.144
Intermittent Fever	2	.022	.004	. . .	2	. . .	. . .	. . .	
Remittent Fever	1	.011	.002	1	. . .	. . .	. . .	. . .	
Rheumatism	30	.333	.073	14	16	1	. . .	1	.011
Pyæmia	21	.233	.051	15	6	1	2	3	.032
Syphilis, Congenital	12	.133	.029	8	4	8	4	12	.133
Syphilis, Tertiary	9	.100	.021	4	5	. . .	. . .	. . .	
Purpura	1	.011	.002	1	. . .	. . .	. . .	. . .	
Alcoholism	94	1.045	.229	61	33	. . .	. . .	. . .	
Septicæmia	12	.133	.029	3	9	. . .	1	1	.011
Entero-colitis	29	.322	.070	16	13	15	13	28	.311
Tonsillitis	3	.033	.007	. . .	3	. . .	3	3	.033

Table V. — Deaths from Ten of the Principal Causes.

	Total deaths from each cause.	Percentage of each cause to total mortality.	Deaths per 1,000 inhabitants.	Total deaths per sex.		Total deaths per sex under five years.		Total deaths under five years.	Percentage of each cause under five years to total mortality.
				M.	F.	M.	F.		
Consumption	1,579	17.554	3.847	674	905	27	26	53	.589
Pneumonia	681	7.226	1.659	389	301	87	76	163	1.812
Heart Disease	510	5.669	1.242	251	259	9	4	13	.144
Cholera Infantum	506	5.625	1.233	265	241	264	240	504	5.603
Diphtheria	458	5.091	1.116	219	239	133	134	267	2.968
Accidental and Violent . .	414	4.602	1.008	329	85	30	17	47	.522
Bronchitis	373	4.146	.908	199	174	152	109	261	2.901
Marasmus, Tabes Mesenterica, and Scrofula . . .	288	3.201	.701	138	150	127	132	259	2.879
Cancer	253	2.823	.616	72	181	. . .	2	2	.022
Diarrhoea	231	2.568	.562	117	114	101	88	189	2.101

Table VI.—Aggregate and Average Age and Parentage of Decedents.

1882.	American Parentage.			Foreign Parentage.			Mixed Parentage.			One Parent Known.			Unknown.			Total of all Parentages.		
	Number of Deaths.	Aggregate Age.	Average Age.	Number of Deaths.	Aggregate Age.	Average Age.	Number of Deaths.	Aggregate Age.	Average Age.	Number of Deaths.	Aggregate Age.	Average Age.	Number of Deaths.	Aggregate Age.	Average Age.	Number of Deaths.	Aggregate Age.	Average Age.
January . . .	198	7,033	35.52	437	14,380	32.90	54	465	8.61	10	229	22.90	48	2,271	47.31	747	24,378	32.63
February . . .	161	5,633	34.98	394	13,226	35.56	51	586	11.49	20	264	13.20	30	1,344	44.80	656	21,053	32.09
March	181	5,642	31.17	427	13,698	32.07	48	261	5.43	19	290	15.26	26	1,050	40.38	701	20,941	29.87
April	221	7,326	33.14	460	14,978	32.56	57	1,078	18.91	17	505	29.70	58	2,412	41.58	813	26,299	32.34
May	179	6,324	35.32	453	13,975	30.84	50	551	11.02	17	168	9.88	45	2,034	45.20	744	23,052	30.98
June	159	4,622	29.06	371	11,424	30.79	57	305	5.35	31	298	9.61	37	1,315	35.54	655	17,964	27.42
July	206	5,822	28.26	458	10,638	23.22	85	573	6.74	41	169	4.12	51	1,889	37.03	841	19,091	22.70
August	212	5,709	26.92	506	13,023	25.73	101	432	4.27	26	50	1.92	46	1,621	35.23	891	20,835	23.38
September . .	181	4,929	27.23	426	12,542	29.44	74	511	6.90	30	87	2.90	46	1,612	35.04	757	19,681	25.99
October	207	6,559	31.68	403	12,072	29.95	55	423	7.69	13	3	.23	43	1,872	43.53	721	20,929	29.02
November . . .	191	6,070	31.78	411	13,678	33.27	48	432	9.00	14	344	24.57	34	1,389	40.85	698	21,913	31.39
December . . .	210	6,273	29.87	444	13,853	31.20	68	961	14.13	9	111	12.33	40	1,591	39.77	771	22,789	29.55
Total	2,306	71,942	31.19	5,190	157,487	30.34	748	6,578	8.79	247	2,518	10.19	504	20,400	40.47	8,995	258,925	28.78

Table VII.—Difference in Years between the average Age of Decedents of Mixed, Foreign, and American Parentage.

Months.	1882.					
	Average Age.		Difference.	Average Age.		Difference.
	American.	Foreign.		American.	Mixed.	
January	35.52	32.90	2.62	35.52	8.61	26.91
February	34.98	35.56	— .58	34.98	11.49	23.49
March	31.17	32.07	— .90	31.17	5.43	25.74
April	33.14	32.56	.58	33.14	18.91	14.23
May	35.32	30.84	4.48	35.32	11.02	24.30
June	29.06	30.79	— 1.73	29.06	5.35	23.71
July	28.26	23.22	5.04	28.26	6.74	21.52
August	26.92	25.73	.19	26.92	4.27	22.65
September	27.23	29.44	— 2.21	27.23	6.90	20.30
October	31.68	29.95	1.73	31.68	7.69	23.99
November	31.78	33.27	— 1.49	31.78	9.00	22.78
December	29.87	31.20	— 1.33	29.87	14.13	15.74
Total	31.19	30.34	.85	31.19	8.79	22.40

Table VIII.—Aggregate of the average Age of Decedents of American, Foreign, and Mixed Parentage for each Quarter of the year 1882.

Parentage.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
American	101.67	97.52	82.41	93.33
Foreign	100.53	94.19	78.39	94.42
Mixed	25.53	35.28	17.91	30.82

Table IX. Ten of the Principal Causes of Death, by Sex and Month, with Nativity of Parents.

	Jan.		Feb.		Mar.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total.		Nativity of Parents.					Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	American.	Foreign.	Mixed.	One Parent known.	Unknown.	
Consumption . .	57	90	48	68	53	77	62	80	65	66	51	65	57	56	46	67	58	82	48	87	65	84	64	83	905	674	259	1171	74	14	61	1,579
Pneumonia . . .	46	35	30	29	41	31	56	49	42	36	22	25	20	9	8	9	9	11	23	14	38	22	45	31	380	301	180	417	39	2	43	681
Heart Disease . .	28	21	25	19	14	22	14	38	31	19	25	11	19	15	19	16	23	24	16	23	13	19	24	32	251	259	145	307	17	6	35	510
Cholera Infantum . .	.	2	1	.	1	1	.	.	.	1	6	5	107	80	98	100	40	38	10	13	1	1	.	.	265	241	129	265	75	24	13	506
Diphtheria . . .	14	21	30	21	20	16	16	19	24	27	11	21	9	6	9	10	6	16	19	18	26	22	35	42	219	239	160	218	74	3	3	458
Accidental and Violent	20	11	19	6	23	9	30	5	32	8	27	5	36	7	37	11	22	5	34	6	28	7	21	5	329	85	83	235	19	4	73	414
Bronchitis . . .	21	24	17	19	27	8	21	24	22	19	21	11	7	14	6	5	7	11	10	8	13	11	27	20	199	174	77	223	45	17	11	373
Tubes Mesenterica, Marasmus and Scrofula . .	5	9	7	8	7	14	12	12	12	12	11	9	11	15	18	15	24	21	15	13	6	14	10	8	138	150	74	115	48	31	20	288
Cancer	5	17	9	18	3	13	5	28	6	17	8	15	6	9	8	12	5	12	7	15	5	18	5	7	72	131	80	145	7	2	19	253
Diarrhoea	4	4	5	5	3	2	6	3	2	3	6	6	16	27	28	23	24	11	14	9	6	13	3	6	117	114	60	86	29	35	21	231

Table XI.—Deaths from Principal Zymotic Diseases, by Sex, and Month, with Nativity of Parents.

	Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total.		Nativity of Parents.					Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	American.	Foreign.	Mixed.	One Parent Known.	Unknown.	
Small-pox	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	5	2	6	....	....	....	8
Measles	...	...	...	...	1	1	...	...	...	...	3	5	5	2	1	2	...	...	...	...	...	...	1	4	11	14	2	20	3	....	....	25
Scarlatina	3	1	2	1	2	3	3	2	2	2	3	10	2	2	5	4	3	....	...	2	5	3	7	33	42	19	46	10	....	....	75	
Diphtheria	14	21	30	21	20	16	16	19	24	27	11	21	9	6	9	10	6	16	19	18	26	22	35	42	219	239	160	218	74	3	3	458
Croup.....	11	5	1	2	7	4	6	2	8	4	2	8	1	....	4	1	6	5	7	1	7	8	9	68	49	25	71	20	....	....	1	117
Whooping-cough...	2	5	3	3	7	11	5	4	7	7	5	5	3	4	4	7	2	1	2	...	2	2	1	...	43	49	28	45	14	3	2	92
Typhoid Fever.....	4	8	8	6	6	7	3	7	5	5	7	7	7	9	4	10	13	18	27	18	8	11	6	8	98	114	49	140	15	....	8	212
Enteritis .....	....	....	3	3	1	2	3	1	3	....	2	4	3	7	....	4	3	3	5	4	1	...	2	2	26	30	18	25	9	2	2	56
Erysipelas	3	....	2	3	2	3	5	4	2	2	1	1	2	....	....	1	....	....	1	...	1	1	4	2	23	17	18	21	1	....	....	40
Puerperal Fever...	....	7	....	9	....	12	....	7	....	8	....	3	....	6	....	7	....	1	...	5	...	5	...	...	75	...	16	53	....	....	6	75
Carbuncle.....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	1	....	....	....	....	....	....	1	...	4	....	1	1	....	1	1	4	
Dysentery	1	....	1	1	....	1	2	1	....	1	2	....	8	5	17	13	9	11	2	2	...	6	...	...	42	41	21	55	4	1	2	83
Diarrhoea	4	4	5	5	3	2	6	3	2	5	6	6	16	27	28	23	24	11	14	9	6	13	3	6	117	114	60	86	29	35	21	231
Cholera-morbus....	1	....	....	....	1	....	1	....	....	....	2	....	6	2	13	8	4	6	1	1	...	...	...	29	17	8	32	5	....	1	46	
Cholera Infantum..	....	2	1	....	1	1	....	....	....	1	6	5	107	80	98	100	40	38	10	13	1	1	1	...	265	241	129	265	75	24	13	506

Cerebro-spinal } Fever.....}	.....	1	2	1	.....	2	2	4	.....	1	2	1	1	2	1	1	.....	1	.....	1	1	15	9	6	12	6	.....	24		
Intermittent Fever.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	2		
Remittent Fever....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	1		
Rheumatism.....		1	3	3	1	3	1	3	2	1		1			1	1	2	1	1	2		14	16	5	20	4		1	30	
Pyæmia.....	1	2	.....	.....	.....	.....	1	2	1	2	1	1	.....	.....	2	.....	.....	.....	.....	.....	1	15	6	9	1	.....	2	21		
Syphilis, Congenital	1	.....	1	.....	.....	.....	.....	2	2	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	8	4	1	2	1	3	5	12		
Syphilis, Tertiary..	1	.....	1	.....	.....	1	.....	1	.....	1	.....	1	.....	.....	1	.....	.....	.....	.....	.....	1	4	5	1	8	.....	.....	9		
Purpura.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	1		
Alcoholism.....	7	5	3	2	4	3	6	4	6	2	4	1	3	4	8	4	6	2	6	4	3	1	61	33	11	63	2	1	17	94
Septicæmia.....		2								2	1	2							1		1		3	9	4	5		3	12	
Entero-Colitis.....								1					2	6	4	5	3	2	2	1	1		16	13	4	11	12	2		29
Tonsillitis.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	3	1	2	.....	.....	3		

Table XIII.—The Number and Percentages of Deaths in each Quarter of each Year during a Period of Eighteen Years, 1865–1882, inclusive.

YEARS.	FIRST QUARTER.		SECOND QUARTER.		THIRD QUARTER.		FOURTH QUARTER.		Rate per 1,000 inhabitants.
	Deaths.	Per cent.	Deaths.	Per cent.	Deaths.	Per cent.	Deaths.	Per cent.	
1865.....	1,115	24.55	1,068	23.52	1,353	29.80	1,005	22.13	23.6
1866.....	999	22.81	957	21.85	1,338	30.56	1,085	24.78	22.4
1867.....	1,071	24.22	950	21.49	1,191	26.94	1,209	27.35	22.3
1868.....	1,341	24.30	1,203	21.80	1,736	31.45	1,239	22.45	23.9
1869.....	1,374	24.88	1,297	23.48	1,562	28.28	1,290	23.36	23.4
1870.....	1,395	22.88	1,314	21.55	1,983	32.52	1,406	23.05	24.3
1871.....	1,411	23.97	1,299	22.06	1,842	31.28	1,336	22.69	23.
1872.....	1,697	20.97	1,777	21.97	2,511	31.04	2,105	26.02	31.80
1873.....	2,115	26.88	1,726	21.93	2,278	28.95	1,750	22.24	30.27
1874.....	1,805	23.11	1,818	23.27	2,278	29.16	1,911	24.46	24.9
1875.....	2,190	24.45	1,909	21.31	2,680	29.92	2,179	24.32	24.95
1876.....	2,246	27.21	1,809	21.91	2,375	28.77	1,823	22.08	23.39
1877.....	1,723	23.55	1,613	22.04	2,317	31.67	1,663	22.73	20.15
1878.....	1,743	22.82	1,744	22.83	2,174	28.47	1,975	25.86	21.03
1879.....	1,947	26.30	1,615	21.83	1,959	26.48	1,877	25.37	20.38
1880.....	2,015	23.62	1,829	21.45	2,500	29.30	2,187	25.63	23.53
1881.....	2,332	25.86	2,021	22.41	2,466	27.34	2,197	24.38	22.67
1882.....	2,104	23.39	2,212	24.59	2,489	27.67	2,190	24.35	21.91

Table XIV.—Total Deaths each Quarter for the last Five Years, with the Aggregate and Average Number from 1873 to 1877, inclusive.

	1878.	1879.	1880.	1881.	1882.	5 years, 1873-1877.	
						Aggregate.	Average.
First Quarter	1,743	1,947	2,015	2,332	2,104	10,079	2,016
Second Quarter.....	1,744	1,615	1,829	2,021	2,212	8,875	1,775
Third Quarter	2,174	1,959	2,500	2,466	2,489	11,928	2,386
Fourth Quarter.....	1,675	1,877	2,187	2,197	2,190	9,326	1,868
Total for each year	7,636	3,798	8,531	9,016	8,995	40,208	8,042

Table XV.—Total Deaths and Percentages each Quarter for the Year 1882, with Aggregates and Percentages for the ten Years previous.

	1882.		1882-1883.	
	Deaths.	Per cent.	Deaths.	Per cent.
First Quarter.....	2,104	23.39	19,813	24.48
Second Quarter.	2,212	24.59	17,861	22.10
Third Quarter	2,489	27.67	22,538	29.11
Fourth Quarter	2,190	24.35	17,861	24.31
Totals	8,995	100.00	79,073	100.00

Table No. XVI. Parentage of Children under One, Two, and Five Years for each Month during the Year 1882.

	JANUARY.			FEBRUARY.			MARCH.			APRIL.			MAY.			JUNE.		
	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.
United States.....	41	10	13	24	10	12	40	13	13	43	23	11	30	8	17	31	9	15
Foreign.....	46	23	30	43	28	27	52	27	33	59	34	31	62	30	38	51	23	31
Mixed.....	16	10	7	17	9	3	14	9	10	17	4	8	17	9	8	22	8	10
One parent known	5	..	..	12	1	2	12	2	..	7	..	..	10	..	..	15	2	2
Unknown	4	..	1	1	1	1	3	..	..	7	..	..	4	..	..	10	..	..

	JULY.			AUGUST.			SEPTEMBER.			OCTOBER.			NOVEMBER.			DECEMBER.		
	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.	Under 1 yr.	1 yr. and under 2 yrs.	2 yrs. and under 5 yrs.
United States.....	82	12	8	81	12	13	63	6	9	41	11	13	28	13	17	54	10	24
Foreign.....	138	47	18	132	36	31	98	31	17	57	26	19	46	22	21	56	20	30
Mixed.....	48	12	7	61	9	15	37	9	12	30	9	7	20	4	7	22	10	6
One parent known	22	3	..	24	2	1	17	1	..	12	..	..	10	..	..	7	..	1
Unknown	10	2	..	11	..	1	11	..	..	5	..	..	3	1	1	4	1	3

Table XVII. Cases Reported, and Deaths from Small-pox, Diphtheria, Scarlet Fever, and Typhoid Fever, with Percentages.

DATE.	SMALL-POX.*		Percentages.	DIPHTHERIA.		Percentages.	SCARLET FEVER.		Percentages.	TYPHOID FEVER.		Percentages.
	Cases.	Deaths.		Cases.	Deaths.		Cases.	Deaths.		Cases.	Deaths.	
1872.....	2,592	738	28.4	.....	.....	.....	.....	.....	.....	.....	.....	.....
1873	1,103	302	27.3	.....	.....	.....	.....	.....	.....	.....	.....	.....
1874.....	7	2	28.5	.....	.....	.....	.....	.....	.....	.....	.....	.....
1875.....	5	1	20.0	.....	.....	.....	.....	.....	.....	.....	.....	.....
1876.....	6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1877.....	17	4	23.5	.....	.....	.....	1,334	104	7.7	.....	.....	.....
1878.....	.....	.....	.....	1,370	448	32.7	848	68	8.0	.....	.....	.....
1879.....	.....	.....	.....	1,167	391	33.5	951	149	15.6	.....	.....	.....
1880.....	4	1	25.0	1,715	588	34.2	497	33	6.6	{ Oct 1st to } { Dec. 31st, }		.....
1881.....	44	6	13.6	1,680	601	35.7	383	35	9.1	335	76	26.8
1882.....	24	8	33.3	1,386	458	33.04	689	75	10.8	808	212	26.2

* Exclusive of quarantine.

Table XVIII.—Comparison of Vital Statistics of Cities in

CITIES OF UNITED STATES.	Population by census.	When taken.	Population estimated in 1882.	Births reported.	Marriages reported.	Still-births reported.	Total number of Deaths.	Annual death-rate per 1,000 inhabitants.	Total number of Zymotic deaths.	Percentage of Zymotic deaths to total mortality.	Small Pox.
New York, N.Y. . . .	1,206,577	June, 1880	1,279,560	27,321	11,085	2,658	37,924	29.64	12,422	35.3	259
Brooklyn, N.Y. . . .	566,689	1880	604,356	10,656	4,152	1,066	15,014	24.84	4,880	32.5	12
Chicago, Ill.	560,693	July, 1882	560,693	?	?	995	13,234	23.60	5,136	38.8	1292
Boston, Mass.	362,535	1880	410,376	10,986	4,631	518	8,995	21.91	2,276	25.30	8
St. Louis, Mo.	350,522	? June, 1880	400,000	8,441	?	702	7,845	19.5	2,548	32.4	12
Baltimore, Md.	332,790	1880	408,520	7,759	3,634	677	8,923	21.81	2,802	31.4	551
Cincinnati, Ohio . . .	255,708	1880	280,000	7,101	1,759	396	6,873	24.54	2,641	38.3	1249
San Francisco, Cal. . .	235,000	1880	250,000	2,115	2,217	295	5,419	21.6	?	?	20
Hudson Co., N.J. . . .	187,950	1880	199,628	3,477	1,760	319	5,504	27.5	?	?	134
Cleveland, Ohio	160,458	1880	190,000	5,497	2,497	324	3,563	18.7	?	?	8
District of Columbia .	177,638	?	189,131	3,253	784	364	4,223	22.33	996	23.5	15
Pittsburgh, Pa.	157,000	1880	170,000	4,637	1,945	280	4,090	24.0	1,072	26.2	300
Providence, R.I. . . .	116,755	Jan. 1883	114,377	2,788	1,172	162	2,242	19.60	513	22.8	. .
Rochester, N.Y.	?	?	100,000	2,265	959	?	1,791	17.9	448	25.0	1
Richmond, Va.	63,600	1880	68,000	1,855	634	147	1,853	27.25	470	25.3	96
New Haven, Conn. . . .	62,882	1880	72,000	2,088	703	70	1,343	18.7	299	22.2	. .
Lowell, Mass.	59,485	1880	68,000	1,764	860	23	1,322	19.03	?	?	. .
Toledo, Ohio	55,015	1881	60,000	745	674	65	855	14.25	249	29.1	. .
Cambridge, Mass. . . .	52,860	1880	54,500	1,472	618	53	1,111	20.3	227	20.4	. .
Paterson, N.J.	50,887	1880	56,300	?	?	?	1,586	28.1	?	?	37
Fall River, Mass. . . .	50,507	May 1, 1882	?	1,522	612	101	1,463	28.5	?	?	3
Charleston, { White S.C. . . . { Colored	? ?	? ?	25,000 27,286	545 1,033	148 154	41 142	554 1,172	22.32 42.91	127 233	22.9 19.8	
Minneapolis, Minn. . . .	48,343	1880	80,000	2,686	?	72	1,572	18.0	597	37.9	13
Wilmington, Del. . . .	42,499	1880	50,000	1,285	255	66	1,143	22.08	?	?	13
Lynn, Mass.	38,284	1880	43,000	975	514	52	802	18.65	?	?	. .
Peoria, Ill.	29,313	1880	35,000	539	?	24	474	16.0	90	18.9	. .
Erie, Pa.	27,730	1880	30,000	?	?	32	499	16.0	142	28.4	12
New Bedford, Mass. . .	26,875	1880	29,000	767	416	37	606	20.0	?	?	. .
Somerville, Mass. . . .	24,985	1880	27,561	761	272	31	472	17.1	112	23.7	. .
Salt Lake, Utah	20,768	1880	22,000	?	?	45	518	24.0	153	29.5	. .
Knoxville, Tenn. . . .	17,151	Aug. 1882	17,151	434	?	40	365	18.89	119	32.6	6
Lafayette, Ind.	15,000	1880	16,000	318	326	12	142	8.8	31	21.8	. .
Newburyport, Mass. . .	13,538	1880	14,000	401	151	6	298	21.2	46	15.4	. .
Aurora, Ill.	13,000	1876	13,000	?	?	3	185	14.23	25	13.5	2
Burlington, Vt.	11,364	June 1880	?	320	91	27	227	19.97	49	21.5	. .

EXPLANATIONS. — ?, Information not furnished. a, Bronchitis included. b, Congestion of

the United States for the Year ending December 31, 1882.

Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	Cerebro-Spinal Fever.	Cholera.	Relapsing Fever.	DIARRHOEAL DISEASES.		Phthisis Pulmonalis.	Pneumonia.	Bronchitis.	Total deaths of children under 5 years of age.	Percentage of deaths of children under 5 years to the total mortality.
										Children under 5 years of age.	Total of all ages.					
913	2,066	1,525	729	658	65	362	238	.	.	3,479	4,050	5,251	3,472	1,583	17,520	46.20
168	892	631	334	248	..	83	3	1	.	1,600	1,893	1,806	1,204	684	7,136	47.4
244	200	521	232	101	5	462	120	.	.	?	1,387	1,042	829	502	6,645	50.2
25	75	458	117	92	..	212	24	.	.	789	951	1,579	681	373	3,151	35.03
64	346	385	102	80	..	166	..	.	.	525	704	869	469	?	3,454	44.0
71	179	707	222	43	3	165	38	.	.	582	705	1,217	517	110	3,755	42.7
68	336	118	65	47	1	146	39	3	.	427	550	783	373	145	2,904	42.35
60	58	128	41	30	..	140	37	.	.	?	?	808	522	174	1,670	33.0
85	249	201	148	61	1	106	25	.	.	?	398	634	525	173	2,615	47.3
...	74	208	105	..	..	119	..	.	.	376	423	312	a276	?	1,640	46.24
2	55	103	41	15	1	91	9	.	.	336	401	734	328	89	1,669	40.0
91	63	185	27	96	..	268	34	.	.	323	375	264	306	106	1,886	46.0
4	18	48	32	40	..	141	15	.	.	?	197	354	b176	61	677	30.19
3	8	17	12	12	..	52	17	.	.	?	179	247	103	18	697	37.6
3	19	101	11	4	..	34	7	.	.	135	177	229	97	25	636	35.5
10	11	c60	?	17	..	24	3	.	.	99	125	203	b99	32	461	34.32
1	9	18	23	12	..	52	..	.	.	?	?	211	74	33	527	39.7
5	58	38	19	2	..	15	5	.	.	?	?	89	46	25	385	45.0
1	8	49	20	12	1	17	3	.	.	82	86	209	104	20	386	34.7
13	57	19	19	..	..	6	3	.	.	106	127	165	a176	?	722	45.5
1	4	26	36	22	..	48	..	.	.	?	?	50	55	54	?	?
...	10	17	4	21	..	15	..	1	.	?	31	72	10	10	147	26.5
...	3	7	1	59	..	38	..	1	.	?	87	206	52	11	500	42.6
23	23	105	53	..	..	183	40	4	.	136	157	144	134	33	660	42.0
...	22	13	15	21	..	51	4	..	..	..	24	168	68	?	506	45.1
...	29	18	5	4	..	27	..	..	..	55	70	119	46	2	351	43.7
...	1	8	11	..	..	14	..	..	..	30	41	48	25	2	128	27.0
...	...	41	9	7	9	20	..	..	..	?	44	64	28	?	184	36.8
1	4	5	4	3	..	12	6	3	.	?	14	97	44	14	209	33.0
...	4	52	2	2	..	8	1	..	..	31	32	90	34	12	e212	44.9
25	1	12	2	2	..	28	13	..	..	?	53	30	50	8	208	40.1
1	33	11	4	3	..	26	5	..	..	?	?	47	25	5	144	39.4
...	...	3	2	5	..	6	2	..	..	10	13	19	12	3	48	33.0
...	2	3	10	..	..	6	4	..	..	17	21	48	21	2	85	28.5
...	1	2	1	1	..	4	1	..	..	13	?	33	10	1	59	31.8
...	1	2	2	14	..	8	2	..	..	9	11	35	18	7	88	38.77

lungs included c, Croup included. d, Incomplete. e, Under 10 years of age.

Table XIX.—Comparison of Vital Statistics of Foreign

FOREIGN CITIES.	Population by cen- sus.	When taken.	Population estimated in 1882.	Births reported.	Marriages reported.	Still-births reported.	Total number of deaths.	Annual death rate per 1000 inhabi- tants.	Total number of Zymotic deaths.	Percentage of Zy- motic deaths to total mortality.	Small-pox.
London, England....	3,816,483	?	3,893,272	133,200	35,414	?	82,905	21.4	15,082	18.1	431
Liverpool " ...	552,508	April 3, 1881	560,377	20,498	?	?	14,818	26.4	2,843	19.1	6
Bristol " ...	206,503	1881	210,134	6,935	?	?	4,019	19.1	?	?	....
Salford " ...	176,233	1881	184,001	7,130	?	?	4,265	23.2	826	19.3	18
Newcastle upon Tyne, (city and county), England	145,228	Mch. 31, 1881	147,626	5,476	?	?	3,403	23.0	580	17.0	57
Borough of Birken- head, England	84,006	April, 1881	86,582	3,156	?	?	1,742	20.1	319	18.3	....
Wolverhampton, Eng.	77,221	1881	78,246	2,758	?	147	1,691	21.3	?	?	1
Edinburgh, Scotland .	228,373	April 4, 1881	232,440	7,295	1,951	?	4,562	19.6	748	16.3	1
Glasgow " ..	511,520	April 4, 1881	531,200	19,792	4,981	?	12,985	24.4	2,106	16.2	....
Dundee, " ..	142,454	April 4, 1881	145,433	4,754	?	?	3,054	20.99	536	17.5	....
Dublin, Ireland	343,693	April 3, 1881	348,293	10,073	?	?	9,699	27.8	1,389	14.3	....
Paris, France.....	2,239,928	1881	2,290,152	62,581	21,443	5,170	58,702	26.2	14,891	25.3	661
Havre, "	105,867	1881	105,867	3,573	953	188	3,294	31.1	668	20.2	54
Amiens "	74,170	1881	.....	2,098	567	137	1,964	26.4	496	25.2	12
Rome, Italy.....	300,467	Dec. 31, 1881	300,467	8,930	2,409	436	7,933	26.4	1,792	22.5	21
Verona "	132,826	Dec. 31, 1882	136,102	3,732	844	178	4,087	30.0	?	?	5
Bologna "	121,579	Dec. 31, 1881	123,677	3,402	823	164	3,308	27.2	485	14.6	....
Berlin, Germany.....	1,122,330	Dec. 1, 1880	1,174,293	44,466	?	1,759	30,445	25.94	8,576	28.1	5
Köln "	144,738	Dec. 1, 1880	147,703	5,470	1,338	197	4,109	27.8	487	11.8	7
Dortmund "	66,544	1880	72,000	3,261	688	129	1,966	27.3	?	?	3
Barmen "	95,941	1880	96,500	3,869	?	154	2,519	26.1	?	?	....
Mainz "	61,328	Dec. 1, 1880	63,222	1,943	445	111	1,427	23.26	191	13.3	....
Stuttgart "	106,441	Dec. 1, 1880	108,350	3,460	768	134	2,452	22.6	447	18.2	....
Nuremberg "	99,519	1880	103,255	3,656	1,119	204	2,872	27.8	721	25.1	1
Elberfeld "	93,600	1880	96,000	3,901	?	192	2,452	25.5	?	?	....
Breslau "	272,912	Dec. 1, 1880	280,200	10,522	2,624	505	8,896	31.70	?	?	9
Bremen "	112,453	Dec. 1, 1880	114,231	3,937	932	134	2,491	21.34	252	10.1	....

Cities for the Year ending December 31, 1882.

Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	Cerebro-spinal Fever.	Cholera.	Relapsing Fever.	DIARRHOEAL DISEASES.		Phthisis Pulmonalis.	Pneumonia.	Bronchitis.	Total deaths of children under five years of age.	Percentage of deaths of children under five years to the total mortality.
										Children under five years of age.	Total of all ages.					
2,329	2,004	863	873	4,647	52	975	?	79	1	1,918	2,241	8,409	4,554	11,003	36,259	43.7
410	380	49	157	440	383	172	?	1	.....	540	587	1,345	850	2,304	6,527	44.0
54	75	8	.....	196	10	38	.....	.....	.....	?	104	405	6707	?	1,577	39.2
167	81	18	46	152	12	46	.....	.....	.....	222	240	437	314	495	2,130	49.9
14	82	5	28	107	30	30	.....	3	.....	?	159	318	128	268	1,425	41.8
34	17	3	6	89	27	16	.....	1	.....	53	65	132	118	194	733	42.0
61	29	3	15	70	1	7	.....	.....	3	.....	88	110	79	225	786	46.4
85	92	37	46	118	16	86	.....	5	.....	122	173	503	246	519	1,614	35.4
213	263	177	191	651	34	16	.....	.....	.....	314	401	1,529	62,855	?	5,972	46.0
90	31	36	21	68	15	20	.....	.....	.....	?	?	?	?	?	1,303	42.6
567	37	31	61	81	84	135	?	6	.....	?	247	1,182	407	1,444	3,317	34.0
1,018	158	c2,390	?	205	.....	3,352	2,605	12	.....	5,109	5,466	11,011	4,127	4,360	17,411	29.7
.....	7	c176	?	56	.....	66	.....	.....	.....	293	303	542	209	156	1,217	38.4
9	.....	?	120	4	.....	24	.....	19	.....	.....	421	248	46	130	714	36.3
261	56	197	90	7	3	119	1	..	291	494	746	892	879	304	3,018	38.04
.....	12	34	.....	.....	.....	107	716	..	.....	.....	.....	427	6680	?	1,552	38.6
23	67	36	21	22	2	84	14	..	.....	147	156	405	321	314	1,189	39.5
144	604	1,914	220	292	1	356	.....	.....	.....	?	4,556	3,791	1,823	90	17,266	56.67
18	70	c66	?	131	.....	38	.....	.....	.....	144	?	589	280	154	2,152	50.0
5	48	28	64	.....	.....	39	41	..	.....	2	35	326	6315	?	1,030	52.3
64	226	.....	121	19	31	.....	.....	.....	.....	?	?	444	261	20	1,259	49.9
4	17	16	2	24	22	.....	.....	.....	.....	104	106	225	96	49	596	41.7
64	36	29	26	62	.....	27	3	..	.....	178	182	318	261	46	1,279	52.1
50	81	60	30	54	.....	24	4	..	.....	299	317	521	6503	?	1,475	51.4
72	178	c93	?	43	.....	42	.....	.....	.....	?	?	366	6211	?	1,216	49.5
86	31	163	136	70	2	80	2	..	.....	1,059	?	1,001	670	69	4,664	52.4
4	39	16	11	50	6	.....	.....	.....	.....	133	139	476	182	139	1,180	44.38

Table XIX. — Comparison of Vital Statistics of Foreign

FOREIGN CITIES.	Population by cen- sus.	When taken.	Population estimated in 1882.	Births reported.	Marriages reported.	Still-births reported.	Total number of deaths.	Annual death-rate per 1000 inhab- itants.	Total number of Zy- motic deaths.	Percentage of Zy- motic deaths to total mortality.	Small-pox.
Dresden, Germany.	220,818	Dec. 1, 1880	227,250	8,514	2,108	356	5,692	25.0	1,269	22.2	4
Augsburg, "	61,408	Dec. 1, 1880	63,000	2,299	496	84	1,902	30.19	316	16.6	....
Königsberg, "	140,932	Dec. 1, 1880	147,992	5,068	?	155	4,665	34.24	?	?	17
Altona, "	91,047	Dec. 1, 1880	94,000	3,658	887	133	2,167	23.05	390	17.9	....
Strassburg, "	104,471	Dec. 1, 1880	109,901	3,692	770	136	2,929	26.6	?	?	19
Posen, "	65,663	Dec. 1, 1880	65,663	2,377	568	102	2,042	30.06	?	?	....
Mannheim, "	?	?	55,180	1,889	?	54	1,099	19.91	?	?	....
Hamburg, "	453,869	Dec. 1, 1880	468,070	17,526	4,165	644	11,264	24.1	1,810	16.0	2
Dusseldorf, "	?	?	100,270	3,882	?	179	2,362	23.5	?	?	....
Madgeburg, "	97,539	Dec. 1, 1880	99,000	3,793	919	465	2,278	21.0	?	?	....
Cassel, "	60,793	1881	62,563	1,694	456	130	1,337	21.37	227	16.9	....
München, "	230,023	Dec. 1, 1880	238,000	9,072	2,032	301	7,270	30.55	1,495	20.5	7
Leipzig, "	149,081	Dec. 1, 1880	155,956	5,114	1,510	188	3,295	21.0	551	16.7	2
Essen, "	?	?	59,440	2,741	.....	148	1,749	29.4	323	18.4	66
Antwerp, Belgium...	179,034	Dec. 31, 1880	190,665 (Est. 1878)	7,217	1,654	316	4,854	25.45	957	19.7	7
Liege, "	?	.....	115,300	3,876	1,040	208	2,853	24.7	?	?	4
Buda Pesth, Hungary.	370,767	Jan. 1, 1881	395,212	14,047	3,419	715	12,865	32.6	2,558	17.5	393
Christiana, Norway..	122,424	Dec. 31, 1882	122,424	4,379	1,017	226	2,497	20.43	625	25.1	7
Stockholm, Sweden..	174,706	Jan. 1, 1882	177,000	?	?	?	4,171	23.5	423	26.9	....
Geneva and suburbs, Switzerland	68,351	Dec. 1, 1880	69,401	1,627	631	90	1,560	22.5	168	10.7	2
Zurich and suburbs, Switzerland	75,956	Jan. 1, 1880	79,828	2,610	730	131	2,262	29.7	.....	.....	....
Vienna, Austria.....	726,105	Dec. 1, 1880	740,622	29,262	6,526	1,405	21,595	29.16	3,768	17.4	808
Trieste, "	141,740	Dec. 31, 1882	144,494	5,126	1,158	379	4,294	29.73	809	18.8	1
Prague, Bohemia, Austria	155,818	Dec. 31, 1880	158,910	6,656	1,590	338	5,976	37.7	819	13.7	93
Copenhagen, Denmark	235,254	Feb. 1, 1880	258,000	9,634	2,488	283	6,290	24.76	?	?	....
Utrecht, "	67,638	Dec. 31, 1879	72,514	2,670	523	136	2,020	28.32	?	?	....
Calcutta, India.....	433,219	Feb. 17, 1881	433,219	7,505	?	499	13,177	30.4	7,760	58.8	17
Madras, "	405,848	1881	?	16,523	?	468	14,169	34.8	?	?	355
Ottawa, Province of Ontario, Canada....	27,309	1881	27,349	523	319	28	790	28.9	?	?	....

Cities, for the year ending December 31, 1882.—Continued.

Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping Cough.	Typhus Fever.	Typhoid Fever.	Cerebro-spinal Fever.	Cholera.	Relapsing Fever.	DIARRHOEAL DISEASES.		Phthisis Pulmonalis.	Pneumonia.	Bronchitis.	Total deaths of children under five years of age.	Percentage of deaths of children under five years to the total mortality.
										Children under five years of age.	Total of all ages.					
25	150	534	36	43	.....	33	.....	.....	.....	349	370	803	300	42	2,633	46.25
2	4	c65	?	17	9	.....	.....	.....	.....	193	210	206	b188	?	1,025	53.89
58	6	353	....	54	14	108	.....	.....	.....	?	804	405	b573	?	2,589	55.5
34	32	35	11	36	a11	?	.....	.....	.....	178	180	357	b356	?	1,021	47.1
9	26	c85	?	23	.....	88	.....	.....	.....	500	?	342	?	?	?	?
3	102	61	42	60	.....	88	.....	.....	.....	38	79	185	b138	?	988	48.3
3	15	22	....	14	4	.....	.....	.....	.....	.....	.....	231	b146	?	?	?
152	124	c390	?	147	.....	?	?	.....	.....	863	875	1,423	b1,211	?	5,277	46.8
10	22	c96	?	18	36	1	.....	.....	.....	.....	103	350	b196	?	1,193	50.4
23	29	128	41	25	.....	22	.....	.....	.....	257	346	2	2	2	1,165	51.0
.....	13	28	4	34	25	5	.....	.....	.....	46	59	222	62	49	451	35.98
102	50	c263	?	89	.....	42	.....	.....	.....	.....	923	865	b855	?	3,737	51.40
19	48	c121	?	57	33	?	3	.....	.....	?	268	606	b217	?	1,389	42.0
27	40	c84	?	45	.....	37	.....	.....	.....	.....	.....	276	b232	?	1,161	66.3
83	38	30	116	25	.....	109	.....	2	.....	438	500	479	b711	?	2,287	47.0
22	4	....	12	25	.....	57	.....	14	.....	.....	284	347	b390	?	981	35.0
164	267	252	144	134	a245	.....	.....	.....	.....	.....	?	865	b855	?	3,737	51.40
123	18	14	47	89	1	23	.....	.....	.....	288	299	386	112	200	1,299	52.02
25	25	122	49	19	.....	66	2	.....	.....	652	692	588	446	207	1,720	41.0
3	19	c17	?	2	.....	19	.....	.....	.....	.....	.....	272	b194	?	?	?
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	809	35.6
203	410	332	190	167	a187	?	.....	.....	.....	.....	.....	5,094	2,094	638	8,903	41.22
46	38	c257	?	3	a55	?	.....	1	.....	337	419	677	237	264	1,984	46.0
21	70	c69	?	28	55	.....	3	.....	.....	.....	.....	1,021	284	106	1,785	39.60
270	122	54	49	83	.....	49	.....	.....	.....	913	1,448	765	310	198	?	?
49	1	3	4	19	a16	?	?	2	1	?	94	159	180	100	925	45.79
17	.....	10	110	82	16	175	....	2,240	.....	196	1,454	482	97	134	4,018	30.4
148	?	?	?	?	a3,706	2	?	?	?	?	?	?	?	?	6,648	46.9
8	4	43	6	4	.....	12	8	.....	6	337	?	61	22	11	396	50.1

Table XIX.—Comparison of Vital Statistics of Foreign

FOREIGN CITIES.	Population by cen- sus.	When taken.	Population estimated in 1882.	Births reported.	Marriages reported.	Still-births reported.	Total number of deaths.	Annual death-rate per 1,000 inhabit- ants.	Total number of Zy- motic deaths.	Percentage of Zy- motic deaths to total mortality.	Small-pox.
Toronto, Province of Ontario, Canada....	86,415	1881	89,000	2,600	950	48	1,730	19.5	403	23.2	1
Georgetown, Dema- rara	45,171	1881	45,171	1,441	?	206	2,075	47.35	659	31.7	....
Boucarest, Roumania.	200,000	1878	200,000	5,726	1,114	?	5,252	26.2	1,400	26.6	5
Islands of Malta and Gozo	149,782	April 3, 1881	151,618	5,015	942	178	3,699	24.39	633	17.1	3

Explanations. — ? Information not furnished; a Typhus Fever included;

Cities, for the Year ending December 31, 1882.—*Concluded.*

Measles.	Scarlatina.	Diphtheria.	Croup.	Whooping-cough.	Typhus Fever.	Typhoid Fever.	Cerebro-spinal Fever.	Cholera.	Relapsing Fever.	DIARRHOEAL DISEASES.		Phthisis Pulmonalis.	Pneumonia.	Bronchitis.	Total deaths of children under 5 years of age.	Percentage of deaths of children under 5 years to the total mortality.
										Children under 5 years of age.	Total of all ages.					
15	37	58	32	34	.....	63	9	53	.....	64	130	206	103	79	816	47.0
.....	.....	.....	5	25	2	1	.....	.....	.....	58	284	321	35	28	626	30.17
73	95	103	48	61	4	237	.....	.....	.....	650	724	725	504	224	2,472	47.0
1	.....	31	69	1	4	30	.....	.....	.....	460	494	142	155	161	1,808	48.87

b Bronchitis included; *c* Croup included; *d* Including fevers in general.

TABLE XX.—DISEASES ARRANGED ALPHABETICALLY.

Abscess, not located	.	.	.	.	.	.	2
“ of hand	.	.	.	.	.	.	1
“ larynx	.	.	.	.	.	.	1
“ liver	.	.	.	.	.	.	1
“ neck	.	.	.	.	.	.	1
“ pelvis	.	.	.	.	.	.	3
“ pharynx	.	.	.	.	.	.	2
“ rectum	.	.	.	.	.	.	1
“ kidney	.	.	.	.	.	.	3
Accidents (not specified)	.	.	.	.	.	.	153
“ burns and scalds	.	.	.	.	.	.	22
“ drowned	.	.	.	.	.	.	37
“ fracture of leg	.	.	.	.	.	.	6
“ “ ribs	.	.	.	.	.	.	4
“ “ shoulder	.	.	.	.	.	.	1
“ “ skull	.	.	.	.	.	.	48
“ “ spine	.	.	.	.	.	.	8
“ “ thigh	.	.	.	.	.	.	10
“ lightning	.	.	.	.	.	.	2
“ overlaid	.	.	.	.	.	.	3
“ poisoning	.	.	.	.	.	.	11
“ railroad	.	.	.	.	.	.	45
“ suffocation	.	.	.	.	.	.	8
“ pistol-shot wound	.	.	.	.	.	.	9
Alcoholism	.	.	.	.	.	.	94
Anæmia	.	.	.	.	.	.	5
“ pernicious	.	.	.	.	.	.	8
Aneurism, not located	.	.	.	.	.	.	11
“ of aorta	.	.	.	.	.	.	6
Angina pectoris	.	.	.	.	.	.	10
Anus, imperforate	.	.	.	.	.	.	4
Apoplexy	.	.	.	.	.	.	193
Asthénia	.	.	.	.	.	.	3
Asthma	.	.	.	.	.	.	4
Atelactasis, cardiac	.	.	.	.	.	.	9
“ congenital	.	.	.	.	.	.	5
“ pulmonum	.	.	.	.	.	.	12
Atrophy	.	.	.	.	.	.	3
Brain disease of (not specified)	.	.	.	.	.	.	17
“ concussion of	.	.	.	.	.	.	11
“ congestion of	.	.	.	.	.	.	9
“ inflammation of	.	.	.	.	.	.	9
“ softening of	.	.	.	.	.	.	27
“ tumor of	.	.	.	.	.	.	4

Bronchitis (not classified)	226
" acute	53
" capillary	51
" chronic	43
Cancer, not located	92
" of abdomen	8
" of arm	2
" of bladder	4
" of bowels	8
" of breast	17
" of face	6
" of kidney	3
" of larynx	1
" of liver	28
" of lungs	1
" of mouth	1
" of ovaries	1
" of pancreas	1
" of rectum	10
" of stomach	29
" of throat	6
" of tongue	4
" of uterus	31
Canker	2
Carbuncle (location not stated)	4
Cholera infantum	506
" morbus	46
Cellulitis (location not stated)	1
" of arm	1
" of leg	2
" of neck	1
" of pelvis	3
Cerebro-spinal meningitis	24
Cirrhosis of kidney	2
" of liver	29
" of lungs	2
" of pancreas	1
Convulsions	64
Croup	117
Cystitis	9
" with vesical calculus	2
Cyanosis	17
Debility	35
Diabetes	6
" mellitus	5
Diarrhœa	231
Diphtheria	458

Dysentery	83
Embolism (not specified)	10
" of heart	1
" of lungs	2
Emphysema	2
Empyema	6
Enteritis	56
Entero-Colitis	29
Epilepsy	8
Erysipelas	40
Exposure	1
Extra uterine foetation	2
Fever, intermittent	2
" puerperal	75
" remittent	1
" scarlet	75
" typhoid	212
Gangrene	12
Hæmorrhagic diathesis	2
Heart disease (not classified)	329
" clot	2
" dilatation	8
" embolism	1
" endocarditis	7
" fatty degeneration	15
" hypertrophy	15
" malformation	9
" myocarditis	1
" pericarditis	7
" valvular	116
Heat stroke	15
Hernia, congenital	1
" inguinal	1
" strangulated	14
Hip disease	15
Hydrocephalus and tubercular meningitis	169
Icterus neonatorum	2
Inanition	39
Infanticide	1
Insanity	13
" general paralysis	5
Jaundice	1
Kidney diseases (not specified)	93
" abscess of	3
" Bright's disease of	188
" cancer of	3
Laryngitis	5

Liver disease	16
“ abscess	1
“ cancer	28
“ cirrhosis	29
“ enlargement	3
“ fatty degeneration.	1
“ inflammation	6
Locomotor ataxia	4
Lung diseases — atelactasis pulm.	12
“ cancer	1
“ cirrhosis	2
“ congestion	8
“ consumption	1579
“ embolism	2
“ emphysema	3
“ inflammation of	681
Malformation (not specified)	10
“ of heart	9
“ of lungs	12
Measles	25
Meningitis	225
“ cerebro-spinal.	24
Neglect	3
Obstruction of bowels	13
Old age	280
Ovarian disease	2
“ cancer	1
“ tumor	9
Oesophagus stricture	2
Palsy agitans	2
Paralysis	37
Prostate gland, disease of	3
“ hypertrophy	8
Peritonitis (non-puerperal)	47
Pleurisy	15
Pneumonia	681
Poisoning, accidental	11
“ by lead	4
Premature birth	164
Puerperal disease (not including puerp. fever)	39
Purpura hæmorrhagica	1
Pyæmia	21
Rheumatism, acute	30
“ chronic	5
Scrofula	8
Septicæmia	12
Small-pox	8

Softening of bones	1
" brain	27
Skin-bound	1
Spinal disease	2
" disease, potts	4
" inflammation	14
Spina bifida	1
Strangulation	1
" of bowels	1
Stomach, inflammation of	16
" ulceration of	5
Suffocation	5
" by gas	3
Suicide	38
Surgical operation (death following)	24
Syphilis	9
" congenital	12
Tabes-mesenterica and marasmus	280
Teething	10
Tetanus	5
" following pistol-shot wound	9
Tonsillitis	3
Trismus neonatorum	3
Tuberculosis	17
Tumor, not located	1
" of abdomen	4
" " brain	4
" " ovary	9
" " uterus	10
Uterine disease, cancer	31
" polypus	1
" tumor	10
Umbilical hæmorrhage	3

CONTAGIOUS DISEASES.

The diseases which the Board of Health has regarded as contagious and dangerous to the public health within the meaning of the Statute Law (Chapter 80 of Public Statutes), and which physicians and householders have been required to report to this Board, are small-pox, diphtheria, scarlet-fever, typhus fever, typhoid fever, and measles.

During the last ten years the Board of Health has had absolute control of all the means necessary for the suppression or prevention of an epidemic of small-pox in this city. We possess the means for the most prompt isolation, disinfection, and vaccination, and these three measures are en-

forced in every instance. The result has been very satisfactory, beyond the occurrence of an isolated case, here and there, which has been introduced from abroad.

Business has not been disturbed by the prevalence of this dreaded disease, the loss by death has been very small, and the expense to the city trifling. The number of deaths from small-pox for the last ten years is shown in the following table:—

1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.
302	2	1	2	4	0	0	1	6	8

Reports from physicians, of cases of scarlet-fever, were called for by the Board in January, 1877, and at the same time an order was passed forbidding children attending school from any family in which this disease existed. A circular of instructions was also issued and sent to each family where a case was reported. It was thought not to be advisable at that time to interfere beyond these measures with scarlet-fever. The record then showed an average of 399 deaths yearly, for the previous ten years, from this disease.

The number of deaths from scarlet-fever each year, for the last ten years, is shown in the following table:—

1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.
474	269	534	458	104	68	149	33	35	75

Reports of cases of diphtheria were called for in December, 1877, and a circular of instructions issued and used as in cases of scarlet fever.

Soon after we had prohibited children attending school from families where scarlet-fever existed, the School Board prohibited the attendance of all children from houses where *any* infectious disease existed. It therefore became unnecessary for this Board to make any further prohibition. Diphtheria has been endemic in our city for many years, has produced a large mortality, and is not generally regarded in the community as a very contagious disease. All cases of contagious disease and their location, reported to this Board, are given to the truant officers for the use of the School Board every day. The number of deaths from diphtheria for the last ten years is given in the following table:—

1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.
59	72	420	577	364	448	391	588	601	458

Typhus fever has rarely occurred in Boston for many years. Reports of this disease were called for in 1877; since then seven cases have been reported in the city, and five in quarantine. Only two deaths have occurred from this disease; those were taken at the same time from the City Hospital to quarantine, where both father and son died since the date of this report.

Typhoid fever has prevailed, with some variation from year to year, during the last decade, diminishing gradually in the number of deaths until 1880, when the number began to increase again.

The prevalence of the disease in the fall of 1881 caused the Board to call upon the physicians for reports of all cases occurring within the city.

An investigation of about 250 cases was made, with a view of ascertaining the prevailing cause of the disease; but this was followed with no satisfactory results, except the fact that a large number of the cases were in persons who had just returned from the country.

In December of last year the following circular was issued, and sent to every family where a case of typhoid fever was reported:—

TYPHOID FEVER.

BOARD OF HEALTH, 32 PEMBERTON SQUARE,

BOSTON, December, 1882.

This circular is issued for the purpose of inducing greater care in preventing the spread of typhoid fever, which, according to the most reliable authority, may be contracted by contagion or infection. It is also supposed to be induced by the emanations from decayed animal and vegetable substances, foul drains, and other sources of filth.

The discharges from the bowels of the typhoid patient are supposed to be the source of the greatest danger, and may infect the atmosphere of the sick-chamber, the drain, cesspool, vault, or by filtration may infect the well, cistern, or other source of drinking-water, and produce the disease in other persons.

The disease is most likely to attack persons between the ages of 5 and 40 years, and prevails more in the autumn than in any other season of the year.

When a case of typhoid fever occurs in any family, the sick person should be placed in a room apart from the other inmates of the house, and should be nursed, as far as possible, by one person only. The sick-chamber should be well ventilated, warmed, and exposed to sunlight; its furniture should be such as will permit of cleaning without injury, and all extra articles, such as window and table drapery, woollen carpets, upholstered furniture, and all hangings, should be removed from the room during the sickness.

The physician and nurse, as a rule, should be the only persons admitted to the room.

All vessels used for receiving the discharges of the patient should constantly contain some disinfecting fluid. A five-per-cent. solution of chloride of zinc will be effectual, and without odor or stain. Such dis-

infectant should be used freely upon the discharges as soon as they are received into the vessel. Water-closets, cesspools, and vaults ought to be disinfected daily with a solution of copperas (2 lbs. to the gallon of water).

Every kind and source of filth in and around the house should be removed and disinfectants freely used. Drains should be put in perfect order and ventilated by a 4-inch straight pipe, extended above the highest point of the roof of the house in every instance, terminating at a distance from any chimney or other ventilator.

On the death or recovery of the patient, the room, bedding, and clothing should be thoroughly disinfected.

By order of the Board of Health,

SAMUEL H. DURGIN, M.D.,

Chairman.

The number of deaths from typhoid fever, in each year for the last decade, is given in the following table:—

1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.
243	202	227	145	156	120	119	154	207	212

Measles, although popularly regarded as a disease of moderate consequence, and unfortunately, therefore, not generally isolated in treatment, has in some years in the last decade been the cause of a considerable number of deaths.

There is a common belief that many of these diseases must come to every childhood; that there is no use in trying to escape them.

This we believe to be a great mistake, for there are many who never have measles, scarlet-fever, diphtheria, or small-pox. If one can escape these diseases another may, and, if several hundred lives can be saved yearly, it is a great mistake, if not criminal neglect, to lose them. Measles are now prevalent and increasing, and steps will be taken at once by the Board with a view of checking the spread of the disease. The number of deaths from measles each year, for the last ten, is given in the following table:—

1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.
16	41	65	2	2	145	2	49	108	25

It will readily be seen in the above account of the several contagious diseases for the last ten years that small-pox was stopped in 1873, and has been held at bay ever since. It will also be seen that most of the other contagious diseases have continued to prevail, and some of them have increased, notwithstanding the palliative or mild measures that have been used by the Board of Health.

The difference briefly stated is this: we have a small-pox hospital, and all the appliances for quickly removing cases thereto, and for destroying all infection left behind; but in all other cases, such as diphtheria, scarlet-fever, and measles, we have no hospital to which we can remove them, and one case is generally sufficient, when left at home, to infect the rest of the family, and perhaps the neighborhood; for under such circumstances you can neither isolate properly nor fumigate the premises. The City Hospital has one room for a few volunteer cases, and when that room is full there is left no chance to remove or provide for any other case, no matter how urgent it may be.

What is wanted is sufficient hospital room for the proper care and isolation of every case as soon as the Board of Health shall decide that it cannot be properly isolated at home, and that its condition will permit of removal to hospital without danger to the patient's health.

There would be no hardship in thus removing the patient, but in very many instances it would be the means of saving life, and the city would be but doing what is imposed upon her by statute law.

We respectfully suggest for the consideration of the City Council the advisability of adding to the present City Hospital buildings, another of sufficient capacity to accommodate at least one hundred patients with contagious diseases, this to be so arranged as to isolate safely at least three different diseases at the same time.

Since the City Hospital has a superintendent, staff of physicians, and all the necessary paraphernalia for running a hospital, it could take on this additional work with a moderate extra cost compared with that of running a separate hospital, as the Board of Health would have to do.

It will only be with such accommodations that this Board can successfully combat the diseases referred to, and hope to materially reduce their mortality.

SMALL-POX.

The fears of a recurrence of a small-pox epidemic were not realized during the year, and the city is exceptionally fortunate in having escaped any unusual visitation of the disease, which has been unusually prevalent elsewhere. Prompt and efficient measures for the prevention of its spread in cases where it has made its appearance in the city have secured this gratifying result, and so long as such precautions are faithfully maintained there will be no occasion for any anxiety on this score. The city physician was called upon

to investigate forty-five suspected cases of small-pox, only five of which were ascertained to be well founded, and these cases were removed to the hospital on Canterbury street, where they all recovered. Two of these cases were found to have been contracted in Baltimore, where the disease was for a time epidemic.

Bills amounting to \$9,300.16, for the care and maintenance of small-pox patients whose residence was outside of the city, were made out and forwarded to the Board of State Charities for collection. Of this amount \$5,601.45 has been allowed and is in process of payment into the city treasury.

In November last this department sustained a serious loss in the death of Mrs. Mary F. Powers, who, with her husband, Samuel Powers, had been in charge of the small-pox hospital for the past ten years. Her long and faithful service as a nurse to small-pox patients, and the singular intelligence she displayed in the discharge of her trying duties, rendered her death a misfortune which only those with whom she had labored can fully appreciate. Mrs. Powers first became connected with this department at the breaking out of the small-pox epidemic in this city in 1872, and she and her husband were placed in charge of the small-pox hospitals on Albany street, Marcella street, Gallop's Island, and finally on Canterbury street, where the hospital was permanently located in 1877. To fill the vacancy occasioned by the death of Mrs. Powers the Board was fortunate in procuring the service of the daughter of Mr. and Mrs. Powers, Miss Cora E. Powers, who, with her experience as an assistant to Mrs. Powers, was peculiarly well qualified for the post. The affairs of the hospital have been well conducted under the Superintendent, Mr. Samuel Powers, and Miss Powers, and the Board can still congratulate itself on the excellent accommodations and attendance at its command for the relief of small-pox patients.

DIPHTHERIA.

As heretofore the Board has continued the sanitary inspecting of all houses in which a case of this disease has been reported. In all cases where any defects have been found notice has at once been sent to the owner or occupant, and subsequent examination made from time to time until the existing defects have been remedied.

The following table shows the results obtained from these examinations : —

WARDS.	Mistake in report made by physician.	Diphtheria on arrival.	Direct contagion.	Examination refused.	Premises in good sanitary condition.	Full and offensive vault.	Full and offensive cesspool.	Filthy cellar.	Filthy yard.	Bad sanitary location.	Defective drainage.	Public Institutions.	No examination made.	Want of proper ventilation.	Total.	Fatal cases.
I.....	1	....	....	2	27	4	....	....	....	2	119	....	....	....	155	45
II.....	....	....	....	....	18	....	....	....	....	....	75	....	2	....	95	29
III.....	....	1	....	....	26	3	1	....	1	....	57	....	....	....	89	27
IV.....	....	....	....	....	23	....	....	....	....	....	19	....	2	....	44	9
V.....	....	2	1	....	18	5	2	....	2	....	38	....	....	....	68	24
VI.....	....	....	....	....	18	4	....	4	....	....	45	....	1	....	72	17
VII.....	1	1	....	....	3	3	....	....	....	....	9	1	....	....	18	8
VIII.....	....	....	....	....	15	....	....	....	....	....	13	1	....	....	29	9
IX.....	....	....	....	....	13	3	....	1	....	....	13	....	....	....	30	13
X.....	....	....	....	....	5	....	....	....	....	....	2	....	....	....	7	5
XI.....	1	....	1	....	23	....	....	....	....	....	20	....	1	....	46	22
XII.....	1	....	....	....	18	1	....	1	....	....	38	....	....	2	61	31
XIII.....	2	....	....	....	18	4	1	....	....	....	66	....	....	....	91	36
XIV.....	....	1	....	....	16	2	....	....	....	....	40	1	1	....	61	16
XV.....	....	1	....	....	9	....	....	....	....	....	20	....	....	....	30	13
XVI.....	....	....	....	....	19	3	....	1	....	....	51	....	....	....	74	26
XVII.....	....	....	....	....	17	1	4	1	....	....	27	....	1	....	51	11
XVIII.....	....	1	....	....	9	1	....	....	....	....	14	3	....	....	28	7
XIX.....	1	....	....	....	12	....	....	....	1	....	37	....	....	....	51	11
XX.....	....	....	....	....	10	1	....	....	....	1	33	....	1	....	46	24
XXI.....	....	....	....	....	14	....	....	....	....	....	42	....	....	....	56	10
XXII.....	....	....	....	....	12	1	....	....	....	....	12	....	....	....	25	7
XXIII.....	....	....	....	....	21	1	....	1	....	....	26	1	2	....	52	9
XXIV.....	....	....	....	....	25	2	1	....	....	....	51	....	....	2	81	19
XXV.....	....	....	....	....	7	1	....	....	....	....	16	....	2	....	26	8
Total	7	7	2	2	396	40	9	9	4	3	883	7	13	4	1,386	¹ 436

¹ This number does not include 22 deaths which occurred at the City Hospital.

The following table shows the results of the examinations grouped together, with a view of presenting more clearly the relative proportion of healthy and unhealthy dwellings in which diphtheria had occurred : —

Diphtheria on arrival	7
Direct contagion	2
Premises in good sanitary condition	396
Mistakes in physicians' report	7
Examination refused	2
Public Institutions	7
No examination made	13
	—
	29
Unhealthy and overcrowded tenements	4
Bad sanitary location	3
Filthy yards	4
Filthy cellars	9
Filthy cesspools	9
Full and offensive vaults	40
Defective drainage	883

Premises in bad sanitary condition	952

Total number of cases reported	1,386

Of these 1,386 cases of diphtheria 436 were fatal, giving a mortality of 31.45 per cent. Of the houses in which diphtheria occurred over 70 per cent. were found to be in a defective sanitary condition. It is not, of course, to be understood that all the houses in which no defects were found were in a perfect sanitary condition, as some defects might have escaped detection.

In 323 cases the premises in which diphtheria had occurred were thoroughly fumigated by inspectors in the service of the Board.

NUMBER OF PLACES FUMIGATED BY THE BOARD OF HEALTH DURING THE YEAR 1882.

Where diphtheria occurred	323
Where scarlet-fever occurred	53
Where small-pox occurred	24

Total	400

DIPHTHERIA IN EAST BOSTON.

BY ERNEST W. BOWDITCH.

The prevalence of diphtheria in portions of the city, for some years past, amounting at times to epidemics in certain wards, has suggested an examination into the physical condition of certain districts, with a view to determining, if possible, a cause for the disease. So far as primary reasons are concerned the investigation is thus far of negative value; in fact, not one of the various supposed causes can be substantiated by fact, and but one result — and that, perhaps, of questionable value — appears to have been discovered.

The following, arranged in the order of their supposed importance, were suggested to the writer, by physicians and others, as possible sources of the disease: —

Impure drinking water, and milk.

Street gullies and perforated sewer covers.

Leaky house-drains.

Sewer outfalls and proximity to flats.

Low, damp ground.

High ground (when sewered).

(It will be observed that, to a large extent, these represent the conditions usually considered favorable to the development of typhoid fever and other zymotic diseases.)

It may be well to suggest here that people are apt to assert that impure water and defective drainage, either or both, cause most of the ills the flesh is heir to. While the writer is reasonably certain that these are frequently two of the most powerful agents in *spreading* filth diseases, yet it seems unwise to point to these as the *principal causes* in all cases, without fuller corroborative testimony than is now at hand.

In the present instance it would seem to be questionable whether the drainage, or water, or milk had anything whatever to do with the disease.

East Boston was selected as the most favorable place for examination, because, —

1st. It is inhabited largely by people who do not move to the country during the warm months; neither is there an influx of summer guests to bring in an outside element.

2d. It is isolated, and unlikely to import disease from neighboring communities.

3d. In East Boston, all the conditions before mentioned, that are commonly supposed to be favorable to the development of the disease, are to be found, most of them repeated more than once, and frequently occurring in peculiarly aggravating ways.

MAP SHOWING
DISTRIBUTION OF DIPHTHERIA
— 111 —
EAST BOSTON
For the Years 1878 to 1882 inclusive.

1883.

From the Office of,
E. W. BOWDITCH.

SCALE OF FEET.
300 2 1 0 150 300 600 900 1200 1500





The chart of East Boston, accompanying this, shows every case of diphtheria (1,073) that has been reported to the Board of Health from January, 1878, to December, 1882, inclusive. It indicates also the high and low lands, the lines of flats, sewers, perforated man-holes, etc.

At a glance it will be evident that the disease has been quite evenly distributed over the entire area occupied by dwellings, and does not seem to concentrate at any particular spots.

The table which is shown covers the same period of time, (5 years) for the Island ward. For convenience, these dates are arranged by months, for each ward, with totals and averages for each year and each month, so that the results of different periods can be compared one with another.

Out of the total of 1,073 cases reported, for instance, it will be found that the average number in July for five years has been 8.2, while the highest number in any one year is but 11.

December, on the contrary, exhibits an average for the five years of 31.4 (nearly four times as many as July), and in one instance (1881) the number of cases was 79.

It may be noticed that February exhibits a small average, the next, in fact, to July; though, if we consider that it is a short month, the average for February, March, April, and May are very nearly alike, and considerably above July.

It does not seem to be generally understood, outside the medical profession, that diphtheria (for the most part a children's disease) is contagious. This being recognized, however, a moment's thought will be sufficient to show that the public schools may have an important bearing on the subject; in fact, that they are, perhaps, one of the best vehicles for transporting the disease. It is to this view of the case that the reader's attention is respectfully directed.

The data offered are certainly insufficient to draw general conclusions from, but the *indications* appear to be that when the schools are not in session the disease is not so prevalent; moreover, almost immediately upon the beginning of the long summer vacation there has been, for several years, a very decided drop in the number of cases reported, and the low number appear to continue until the autumn term begins.

Occasionally it is acknowledged that the schools may have a direct bearing upon the question, as we find that in December, 1882, there were fifty-three cases in Ward 1, and that one of the schools *was closed from Dec. 13 to Jan. 2, 1883, on account of the epidemic*. The change was not as marked in January, 1883, as would be expected, though decidedly less than in December. It is unusual, however, to find in any

place that importance is attached to the schools as propagators of diphtheria.

It has been ascertained that the City Board of Health has remarked upon the same thing, to some extent, although its results have not been made public. It would seem, however, as if their very proper request to the School Board, that the school buildings be fumigated periodically, was a wise precaution, and it is safe to assume that it was declined by that Board on account of lack of information on the subject.

Probably it will be but a question of time (let us hope a short time) when patients with diphtheria are isolated, — put in quarantine. It is done now at Rochester, N.Y., and has been desired by the Board of Health, here, for some time past, though the way to actually bring about this desired change is not altogether clear as yet.

In the latter part of 1882 it was noticed at Coggeshall, Essex, England, by Dr. Hubert Airy, of the Local Government Board of England, that the schools had a very decided effect during an outbreak of diphtheria. In this case water used for drinking, milk, and defective drains, were one and all suspected; but, after careful inspection and analysis, the conclusion was arrived at that neither one of the three supposed troubles was concerned in causing or spreading the disease.

In conclusion, it is not claimed that the results, in their present condition, are of great value, though it is hoped they may be made so, in the future, by amplifying the record with further statistics and examinations. Perhaps, however, they may be worth some study, and with the chart may help to set people thinking, and at all events keep stricter watch on the school-houses.

At present what can be expected from school committees of country towns and the small cities of the Commonwealth, when our own School Board does not consider the suggestion of the Board of Health of sufficient moment to be worth testing — even when it can be done with only trifling expense?

BOSTON, June 16, 1883.

MONTHS.	Wards.	1878.		1879.		1880.		1881.		1882.		Average for five years.
			Total.		Total.		Total.		Total.		Total.	
January	1	27		17		10		8		8		24.5
"	2	22	49	7	24	4	14	10	18	9	17	
February (short month) ..	1	6		3		5		3		5		10.20
"	2	2	8	4	7	4	9	15	18	4	9	
March	1	9		..		7		6		2		14.
"	2	7	16	7	7	11	18	15	21	6	8	
April	1	12		1		5		5		8		13
"	2	8	20	5	6	9	14	10	15	2	10	
May	1	3		6		9		3		5		13.6
"	2	5	8	7	13	7	16	16	19	7	12	
June	1	8		5		10		4		10		18.8
"	2	12	20	1	6	9	19	27	31	8	18	
July	1	4		5		5		2		4		8.2
"	2	7	11	1	6	5	10	8	10	..	4	
August	1	5		3		7		8		1		11.8
"	2	..	5	5	8	3	10	20	28	7	8	
September	1	12		2		6		8		3		14
"	2	11	23	1	3	9	15	15	23	3	6	
October	1	3		12		8		42		9		27.2
"	2	24	27	8	20	9	17	18	60	3	12	
November	1	7		10		21		12		45		30.4
"	2	7	14	9	19	12	33	9	21	20	65	
December	1	6		7		10		15		54		31.8
"	2	4	10	6	13	25	35	5	20	27	81	
			211		132		210		234		250	

SEWERAGE.

It may be that every possible effort and advantage has been and is being used to hasten the completion of the great system of intercepting sewers to which we have so long looked for relief; if so, then it would appear ungrateful in us to complain of what seems to be a very long time to wait for needed relief.

It must be apparent, however, to those who have observed at all, as well as to those who are suffering from it, that the further deposit of sewage in Charles river, in the Back Bay, in the South Bay, on the shores of South Boston, in the docks or elsewhere, the stench from which at low tide is almost unbearable, is, to say the least, to be deplored. Even at a considerable distance from these places the stench is

already so great as at times to awaken persons from sleep, and we cannot doubt that it is directly the cause of considerable sickness.

The principal consolation that has been held out to those who are most affected, and whose houses, otherwise delightfully situated, are often in the lee of these nuisances, is the fact that they will probably live to see the great sewer completed and in use, when, instead of discharging the sewage as now, from eighty or ninety outlets, so near to our dwellings and the business centres of the city, it will be discharged well out at sea, whence it cannot return to harm or annoy anybody.

We respectfully beg for those who complain to us that their homes are rendered uncomfortable and their places of business foul with odors from sewage, that there be no possible lack of energy or diligence in the prosecution of this great piece of work, which we are confident will bring relief.

TRANSPORTATION OF DEAD BODIES.

Owing to a somewhat prevalent fear among railroad officers and employés, that many of the human bodies brought to them for transportation were capable of communicating diseases, and believing that some written guarantee against such danger ought to accompany all such bodies in transit, the railroad companies sought and obtained the following Legislative Act during the past winter:—

CHAPTER 124, COMMONWEALTH OF MASSACHUSETTS, IN THE YEAR 1883.

AN ACT RELATING TO THE REMOVAL AND TRANSPORTATION OF CERTAIN BODIES FOR BURIAL.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:—

SECTION 1. Section Five of Chapter 22 of the Public Statutes, relating to the burial or removal of bodies for burial, is amended by inserting in the eleventh line thereof, after the word "bury," the words "or remove."

SECT. 2. No railroad corporation, or other common carrier or person, shall convey or cause to be conveyed, through or from any city or town in this commonwealth, the remains of any person who has died of small-pox, scarlet-fever, diphtheria, or typhoid fever, until such body has been so encased and prepared as to preclude any danger of communicating the disease to others by its transportation, and no local registrar or clerk shall give a permit for the removal of such body until he has received from the Board of Health of the city, or the selectmen of the town, where the death occurred, a certificate, stating the cause of death, and that said body has been prepared in the manner set forth in this section, which certificate shall be delivered to the agent or person who receives the body.

SECT. 3. This Act shall take effect upon its passage.

When the bill was being considered by the Committee on Public Health, a member of this board was called before them, and stated the diseases which ought to be included in the bill, viz: small-pox, scarlet-fever, diphtheria, and typhus fever. The committee, however, for some cause changed typhus to typhoid, thus dropping a very contagious disease and substituting one which leaves in the body no power to communicate the disease.

Immediately following the passage of the above act this Board made and published the following regulation and instruction for use in Boston:—

In pursuance of the above law the Board of Health makes the following regulation:—

Ordered, That the bodies of all persons dying from small-pox, diphtheria, scarlet-fever, or typhus fever must immediately be prepared for the coffin, wrapped in a sheet saturated in a 10-per-cent. solution of chloride of zinc, and placed in a coffin which must be made absolutely tight, and which must not be reopened.

INSTRUCTIONS. — It will be necessary for Undertakers to first comply with the above Law and Regulation, and then certify the same to this Board. The Board of Health will thereupon issue the required certificate.

Blanks for the Undertakers' use will be furnished at this office.

PRISON POINT.

That portion of the territory embraced in the act of May 6, 1881, lying in the channel of the old creek north-westerly of the Boston & Lowell Railroad freight-track, to which allusion was made in the last report of the Board, as was anticipated in that report, became very offensive during the hot weather of last summer and fall. The Board had called the attention of the City Council to the condition of this tract by a communication bearing date May 3, 1882; but final action was not taken thereon by the Council until Sept. 14, 1882, when the Board was ordered to fill the same in accordance with the act before referred to.

As soon thereafter as plans and measurements of the area and of the amount of filling required could be procured from the City Engineer, the Board advertised for proposals for filling the same, such filling to be completed, in conformity to said act, on or before March 1, 1883. Quite a number of bids were sent in, but that of the Eastern Railroad Company was the lowest made by any responsible party. Accordingly a contract was made with said company to do, and complete, all the filling on said tract, on or before March 1, 1883, for the sum of \$3,120, with the proviso inserted in said agreement, that payment of no part of said sum should be de-

manded until the ownership of the territory filled should be satisfactorily ascertained, by legal proceedings or otherwise; and that, if the whole of said territory should prove to be the property of the Eastern Railroad Company, nothing should be due or paid to it under said agreement.

Under this agreement the Eastern Railroad Company proceeded at once to fill said territory with clean gravel, and completed the filling within the stipulated time, thus effectually abating a serious nuisance.

Since said filling was completed, a suit which had been brought by said company against two abutters on the Old Mill Pond, to test the title of said corporation to the flats within it, and embraced within said act of May 6, 1881, and which was alluded to as pending when the last report of the Board was made, has been decided by the Supreme Judicial court in favor of said Company. This decision is believed to settle effectually this question of the title to all of the territory filled under said contract, in favor of the Eastern Railroad Company. If so, it is a fortunate outcome for the city, as the nuisance has been abated at the expense and by the owner of the land, and under the provisions of said contract no claim can be made therefor upon the city.

The lower and deeper parts of the flats above the Old State Prison have been used as a dumping-ground for ashes and street-sweepings by the city teams during the past year, and quite a large area has thus been filled and covered with gravel to the requisite grade. A large tract on Rutherford avenue, along the easterly and northerly sides of the old Mill Pond, has been filled by the Eastern Railroad to the requisite grade, and the most offensive portion of these flats has thus been covered. But a number of acres still remain unfilled, and at the rate the filling has progressed during the past year it will take two or more years to complete it. The question of title in these flats having been settled, that is no longer an obstacle in the way of filling; and the demand for the use of the land for railroad track and depot accommodation is such as to furnish a strong incentive to the vigorous prosecution of the work of filling.

The only serious nuisance now existing in this territory arises from the channel of the creek, now running through the marsh westerly of the railroads, and which lies partly in Boston and partly in Somerville. At present the sewage from the Somerville sewer crossing Cambridge street is discharged into the creek, and mingling with the water of the creek is carried to deep water. The discharge of this sewage into the creek has made it exceedingly foul, notwithstanding the efforts made by both Somerville and Boston to render it

endurable. At last this Board sent a communication to the City Council, asking that a conference be had with the authorities of Somerville, with a view to diverting the sewage from the creek and turning it into the city sewer in Cambridge street, through which it could be discharged into deep water. No definite action has yet been taken on this suggestion, but it is hoped that such a scheme may meet with favor from both cities, as the only practical method of abating the nuisance now existing in the creek. When this is done the trouble in this section will have been practically removed.

CLAPP-STREET TERRITORY.

Since our last report the Sewer Department has put a sewer in Clapp street, between Boston street and East Chester park, and the Board of Health continued the same across private land on the east side of Chester park, a distance of about eight hundred feet, to find an outlet, under Willow court, into tide water. This has furnished easy and proper drainage for a large number of houses which have heretofore drained into cesspools and open ditches, thereby creating considerable nuisance for the whole neighborhood.

There is still need for a sewer to run across the low land, north from Norfolk avenue to East Chester park, near Willow court, to receive the sewage which now runs into an open channel, and which is a constant and troublesome nuisance.

The Superintendent of Sewers has this matter now under advisement, and we hope the sewer will be built the present season, and save the city from further annoyance.

CHARLES AND MYSTIC RIVERS.

At the risk of taxing the patience of the City Council with this subject by yearly repetitions, we beg respectfully again to call attention to the very foul condition of the shores of the Charles and Mystic rivers.

The greater part of the sewage resulting from a population of more than two hundred thousand inhabitants is now flowing into these two rivers and upon their flats, laid bare when the tide is out.

We have several times recommended that such measures be taken as will tend to unite the several cities and towns interested in this question in a scheme for intercepting all the sewage now emptying into the two rivers, and conveying it away to a point on the north shore of our harbor.

There seems to be no other reasonable means for the disposition of this great evil, which is a constant menace to the

health and comfort of the inhabitants of both sides of the river.

Two years ago Governor Long appointed a commission of five gentlemen to draft and report a plan of intercepting sewers for the two valleys.

The report was made to the Legislature, and considered by a committee thereof, who developed the fact that such a scheme was both feasible and desirable; and that the people representing the several cities and towns bordering on the two valleys were mainly in favor of a metropolitan system of intercepting sewers such as we have indicated.

We regret to say that for want of interest, or other cause, the matter was not treated by the Legislature with the appreciation which we believe the subject merits.

In behalf of an unpolluted water supply, and the general comfort and health of the residents in the whole district bordering on these rivers, we respectfully ask the attention of our City Council to this important subject.

FERTILIZING ESTABLISHMENT ON A STREET.

The "Common Sense Fertilizing Company," so called, formerly occupied a space of several acres of land belonging to the Boston Wharf Corporation, near the present warehouses and grain elevator of the New York and New England Railroad Company, in South Boston. At this place and without cover were collected night-soil, stable manure, decayed fruit and vegetables, fish-heads, and such other refuse animal and vegetable substances as could be collected, brought and put into compost with dry street-sweepings and other materials.

Other business soon encroached upon these grounds, and the compost became so offensive that the Board of Health was obliged to order its removal two years ago. From this place the company moved their works over to a place near A street, between First street and the New York and New England Railroad. Here they built a high fence and sheds, and in this enclosure, embracing about two acres of land, they have for about two years carried on the business of receiving material (except night-soil), and converting it into fertilizers. For the most part the process has been attended with a comparatively small amount of offence. In addition to the composting of materials, a process of steaming bones had been set up on these premises, which became offensive, and on the 5th of last March this part of the business was ordered to be discontinued on and after March 15, which order was promptly complied with. The business has since been

complained of, and has been frequently visited by the Board. Upon one occasion the whole premises were found to be in a slovenly condition, neglected and very offensive, when an order was served requiring the premises to be put in order and the nuisance abated within forty-eight hours. This order was complied with, and the premises have since been under constant surveillance by the Board, with the understanding that when the works are again found in such a state of nuisance they will be ordered away.

At best the work cannot long be continued at this place, as business is rapidly nearing the works, when even a small degree of offence will not be tolerated.

PARKER AND WARD STREETS.

A nuisance has been complained of, consisting of an old creek lying along the westerly side of Parker street, in front of and below Sewall, Day, & Co.'s Cordage Works. It is caused by sewage and other filth going into the creek from various sewers. This nuisance has been ordered abated by the City Council, and, under advice, the Board of Health at first thought it could be abated best by constructing and covering a wooden drain four feet and four inches in the creek, leading from the Cordage Works down to the Stony brook, where it crosses Parker street. The City Engineer estimated the cost to be \$5,700, which sum the Board of Health at first asked of the City Council. After further examination, however, the Board of Health concluded that it would be an unwise expenditure of the money to carry out this plan, inasmuch as it would not abate the nuisance, and would do little more than make land for private parties.

It has been found that a large amount of sewage from the residents of Ward street and elsewhere enters this creek above the Cordage Works, and is already a source of complaint, to which the city must now turn attention.

It is believed by the Sewer Department and the Board of Health that a sewer in Ward and Parker streets is not only needed at once, but will be a permanent improvement, and will, with slight additional expense in constructing a gate at the lower end of the creek, to prevent the tide from coming in, abate the whole nuisance. The gate will soon be constructed, when the water in the creek will be confined to a small stream in the centre, and the sides allowed to dry and cease to be offensive. The construction of the sewer alluded to is hopefully looked for.

MUDDY BROOK.

This brook forms the boundary line between Brookline and Boston, and, passing along the marsh, receives the discharge from several private sewers in Longwood and several from Downer street. Its waters are comparatively stagnant, and nearly all filth that enters it finds easy lodgment; and the result is a nuisance of considerable annoyance, if not absolute danger to the health of those living in the vicinity of the stream.

Complaints from this source have been numerous and persistent for several years. The Board has been able to mitigate the nuisance only by flowing the brook with salt water, by means of gates, to cover the filth, and occasionally letting it out to be at once reflowed. This, however, is now proving altogether inadequate for the needs of the case, and something more must be done very soon. The only way the nuisance can ever be abated is to cut off all flow of drainage into it, clean and flush it out, and leave the brook with clean water. This will be done whenever the Park Commissioners get possession of the property; but with the present rate of progress, limited in their power to purchase, they cannot get possession this year.

Whatever can further be done by this Board in the way of flushing out the brook and cutting off private drains will be done at once; but full relief cannot be expected this season, nor until the plans of the Park Commissioners are well carried out.

HOUSE DRAINAGE.

This forms one of the most important branches of our inspection service, and gains new and increasing interest from year to year; and it is encouraging to note the fact that the interest and study is not alone among sanitarians, engineers, and plumbers, but with the people themselves.

Over thirty-five thousand defective drains and deficient trappings were overhauled by the Board for repairs last year. Poor material and bad construction are at the foundation of much of this evil; but the grossest ignorance or stupidity in repairing has often been shown.

The Board of Health for several years asked the City Council to obtain such legislation as would be necessary to regulate house plumbing and draining, under plans to be approved by the Board of Health, and, in deference to the City Council, left the matter in that shape.

Authority was obtained, however, a year ago, by which

the regulation has been formed and is to be executed by the Inspector of Buildings.

We regret that this subject has been divided between two departments of the same government; but, notwithstanding this, we believe it to be a long step in advance, and shall cheerfully give every possible aid we can for the enforcement of these regulations.

As in years past, we have caused to be carefully examined several hundred houses, in different sections of the city, without reference to any previous knowledge or complaint of their condition, with a view mainly of ascertaining the general sanitary condition of the average dwelling. The result, together with the summaries of former examinations, conducted in a similar manner, is given in the following tables:—

SECTION 1.

Seventy-four brick and wooden houses situated in Wards 11 and 12, grade about 20, some quite old, and generally of ordinary condition; occupied by middle class of people, numbering 1,211 persons.

Number of houses in the block	74
“ examined	71
“ in which bad odors were found	35
“ in which defective drains were found	33
“ in which defective trapping was found	19
“ having privy vault on premises	17
“ of such vaults found offensive	8
“ having damp or unclean yards	6
“ having damp or unclean cellars	18
“ using furnaces	18
“ furnaces without proper air-supply	1
“ having water-closets	56
“ offensive water-closets	8
“ having ventilation to soil-pipe or drain	4

SECTION 2.

Fifty-two good brick houses, not new, but in good condition, situated in Ward 9, grade about 15; occupied by people of the first class, numbering 407 persons.

Number of houses in the block	52
“ examined	48
“ in which bad odors were found	14
“ in which defective drains were found	11

Number in which defective trapping was found	8
“ having privy vault on premises	1
“ of such vaults found offensive	0
“ having damp or unclean yards	3
“ having damp or unclean cellars	2
“ using furnaces	28
“ furnaces without proper air-supply	0
“ having water-closets	47
“ offensive water-closets	3
“ having ventilation to soil-pipe or drain	26

SECTION 3.

Twenty-nine fair brick houses situated in Ward 10, grade 35, in fair condition; occupied principally by lodgers, but few families; number of persons, 208.

Number of houses in the block	29
“ examined	27
“ in which bad odors were found	10
“ in which defective drains were found	7
“ in which defective trapping was found	2
“ having privy vault on premises	1
“ of such vaults found offensive	0
“ having damp or unclean yards	4
“ having damp or unclean cellars	5
“ using furnaces	1
“ furnaces without proper air-supply	1
“ having water-closets	26
“ offensive water-closets	0
“ having ventilation to soil-pipe or drain	5

SECTION 4.

One hundred and nineteen good brick houses situated in Wards 11 and 17, grade 17, in good condition; occupied by good class of persons, numbering 817.

Number of houses in the block	119
“ examined	117
“ in which bad odors were found	58
“ in which defective drains were found	40
“ in which defective trapping was found	41
“ having privy vault on premises	0
“ of such vaults found offensive	
“ having damp or unclean yards	0
“ having damp or unclean cellars	0
“ using furnaces	75

Number furnaces without proper air-supply	14
“ having water-closets	117
“ offensive water-closets	18
“ having ventilation to soil-pipe or drain	14

SECTION 5.

Eighty-two fair brick houses situated in Ward 11, grade 20, in medium condition; occupied by a mixed population, with many tenement and lodging houses; number of persons, 858.

Number of houses in the block	82
“ examined	82
“ in which bad odors were found	38
“ in which defective drains were found	35
“ in which defective trapping was found	24
“ having privy vault on premises	2
“ of such vaults found offensive	0
“ having damp or unclean yards	2
“ having damp or unclean cellars	2
“ using furnaces	13
“ furnaces without proper air-supply	3
“ having water-closets	79
“ offensive water-closets	16
“ having ventilation to soil-pipe or drain	1

Total number of houses examined	345
“ in which bad odors were found	155
“ in which defective drains were found	126
“ in which defective trapping was found	94
“ having privy vault on premises	21
“ of such vaults found offensive	8
“ having damp or unclean yards	15
“ having damp or unclean cellars	27
“ furnaces used	135
“ furnaces without proper air-supply	19
“ having water-closets	325
“ having water-closets offensive	45
“ having ventilation to soil-pipe or drain	50
Percentage of defective drains	36.52
“ “ trapping	27.24
“ unventilated drains	85.50

For the purpose of comparison, the result of previous examinations are given in the following tables:—

FOR 1881-82.

Total number of houses examined	491
“ in which bad odors were found	332
“ in which defective drains were found	279
“ in which defective trappings were found	210
“ having privy vault on premises	118
“ of such vaults found offensive	72
“ having damp or unclean yards	10
“ having damp or unclean cellars	35
“ furnaces used	132
“ furnaces without proper air-supply	44
“ having water-closets	373
“ having water-closets offensive	50
“ having ventilation to soil-pipe or drain.	40
Percentage of defective drainage	56.82
Percentage of defective trapping	42.77
Percentage of unventilated drains	91.87

FOR 1880-81.

Total number of houses examined	306
“ in which bad odors were found	180
“ in which defective drains were found	166
“ in which defective trappings were found,	174
“ having privy vault on premises	43
“ of such vaults found offensive	21
“ having damp or unclean yards	8
“ having damp or unclean cellars	11
“ furnaces used	167
“ furnaces without proper air-supply	4
“ having water-closets	295
“ having water-closets offensive	47
“ having ventilation to soil-pipe or drain,	27
Percentage of defective drainage	54.23
Percentage of defective trapping	56.86
Percentage of unventilated drains	91.14

FOR 1879-80.

Total number of houses examined	1,077
“ having bad odors	476
“ having defective drainage	379
“ having imperfect trapping	279
“ having privy vaults	328

Total number	having privy vaults offensive	. . .	128
"	having water-closets.	. . .	753
"	having offensive water-closets	. . .	29
"	without ventilation to soil-pipe or drain	. . .	613
"	having air-boxes	. . .	405
"	having air-boxes badly arranged	. . .	16
"	having clean and dry yards	. . .	1,010
"	having clean and dry cellars	. . .	626

Percentage of defective drainage		35.19
Percentage of defective trapping		25.90
Percentage of unventilated drains		56.91

FOR 1878-79.

Total number	of houses examined		718
"	having bad odors		288
"	having defective drainage		337
"	having imperfect trapping.		334
"	having privy vaults		262
"	having privy vaults offensive		108
"	having water-closets		456
"	having any ventilation to soil pipe or drain		0
"	having air-boxes		71
"	having air-boxes improperly arranged		28
"	having clean and dry yards		701
"	having clean and dry cellars		597

Percentage of defective drainage		46.93
Percentage of defective trapping		46.53
Percentage of unventilated drains		100.00

FOR 1877-78.

Total number	houses examined		351
"	in which defective drains were found		193
"	in which defective trapping was found		275
"	having ventilation to soil-pipe or drain.		21

Percentage of defective drainage		54.95
Percentage of defective trapping		78.34
Percentage of unventilated drains		90.70

The following nuisances were abated upon notice from this office :—

Drains repaired	2,469
Vaults cleaned and repaired	1,363
Traps supplied	1,128
Yards cleaned	371
Stagnant water removed from vacant lots	54
Water-closets repaired	466
Cellars cleaned	538
Cesspools cleaned	161
Privies repaired	118
Vacant lots cleaned.	38
Fowls removed	47
Receptacles provided for garbage	70
Passageways cleaned	62
Stables put in order	9
Swine removed	27
Sundry nuisances	165
	7,086

In addition to the above, 895 complaints made at the office were investigated, and found groundless, or requiring no action by this Board.

In addition to the above the following shows the number of places cleaned and disinfected :—

Streets	277
Places	381
Courts	348
Alleys	1,343
Yards	4,386
Vaults	6,266
Cellars	1,099
Cesspools	7,766
Gutters	2,133
Water-closets	567
Passageways	1,571
Urinals	337
Vacant lots	202
Old sheds	1,583
Vacant rooms	163
	28,422

HOUSES VACATED.

The number of houses ordered to be vacated during the year was 123, of which number only 15 were actually vacated. The other houses having been put in proper con-

dition before the expiration of the time specified in the notice, the tenants were allowed to remain.

The provision of the statute, under which the Board acts in ordering houses to be vacated, provides that where the Board is satisfied, upon their examination, that any cellar, room, tenement, or building in its town, occupied as a dwelling-place, has become, by reason of the number of occupants, or want of cleanliness, or other cause, unfit for such purpose, and a cause of nuisance or sickness to the occupants, or the public, the Board may issue a notice in writing to such occupants, or any of them, requiring the premises to be put in a proper condition as to cleanliness, or, if they see fit, requiring the occupants to remove or quit the premises within such time as the Board may deem reasonable.

The powers conferred upon the Board of Health by the provisions of this statute constitute the main reliance of the Board in securing compliance with its requirements in dwelling-places found to be in a defective sanitary condition. Without this authority the process of correcting the defects complained of would be slow, and attended by such delays and complications as to render the abatement of nuisances in and about dwelling-places practically impossible. Certain parties who felt aggrieved at the action of Boards of Health, in the application of the provisions of this statute, endeavored to secure its repeal by the present Legislature, proposing, in lieu thereof, an act empowering Boards of Health, after having given a hearing to parties in interest, to make such repairs on premises complained of as they might deem proper, the expense thereof to constitute a lien on said premises. At a hearing before the Legislative Committee on Public Health, the impracticability of the provisions of the proposed act and the merits of the present law on the subject were so clearly shown by the health authorities of several cities and towns in the Commonwealth who appeared at the hearing, that the petitioners were given leave to withdraw, and the old law which has been on the statute books for many years remains. It is no doubt true, as was alleged by the petitioners for the proposed act, that the law, as it now stands, is arbitrary in its provisions, and gives the Boards of Health extraordinary powers, which might work great injustice if improperly administered; but no cases of abuse of the powers conferred by the law were instanced, and the Legislative Committee preferred to trust to the health authorities of cities and towns to administer the present law fairly and impartially, rather than to imperil the public health by any curtailment of the powers of health officers.

LYING-IN HOSPITALS.

At the beginning of the year there were three licensed hospitals in the city. During the year one was given up, and there are now but two. These are examined by a medical inspector, and proper sanitary regulations enforced.

INFANT BOARDING.

During the year five persons have reported to the Board of Health that they were engaged in the business of boarding infants. A medical inspector has at regular intervals visited their residences and seen that the premises were in a good sanitary condition, and that the babies were being properly treated. Thirty-five babies were boarded during the year at these places.

WATER SUPPLY.

Complaints of the poor quality of our drinking water have continued to be made, and not without some reason. The people have for a long time distrusted the purity of the water on account of its taste and appearance, and their fears have been borne out by chemical examinations, and by the recent investigation conducted by a special committee of the City Council.

It is greatly to be regretted that as yet no system of sewerage has been adopted, by which the ponds and streams which make up our water supply can be protected against the introduction of filth from the cities and towns bordering on these streams.

Should an epidemic of typhoid fever occur in the town of Natick at any time, Boston would be seriously exposed, through its water supply, to a similar misfortune. And what is true of Natick, in this respect, is measurably true in the case of Ashland and other towns whose drainage finds its way, sometimes directly and sometimes indirectly, into the Sudbury river near our storage-basins.

No chemist or microscopist can yet determine whether a given specimen of water does or does not contain these disease germs.

The new Water Board appear to believe that the citizens who complain of the water are not unreasonable in their complaints, and that it is possible, by diligence and well-directed energy, to improve the condition of our drinking water. This is a long step in advance.

The two principal things to do, as it seems to us, is to

prevent the pollution of the water, and to properly construct and prepare the basins to hold it.

OFFENSIVE TRADES.

In September last a communication was received from George F. Winslow, surgeon U.S. Navy, complaining of the offensive odors issuing from the Petroleum Works carried on by W. & F. H. Whittemore, on premises formerly occupied by the Oriental Coal & Oil Co., situated on the northerly side of Scott's Court and the westerly side of Chelsea street, Charlestown district, directly opposite the navy-yard. This communication was soon followed by a petition of the officers residing in the navy-yard; also, by petition of many citizens in the immediate vicinity, asking for the abatement of the alleged nuisance. The Board visited the premises and being satisfied that there was just cause of complaint, appointed a time for hearing the petitioners, and issued notice to the respondents to show cause why the further prosecution of the business of refining petroleum on said premises should not be prohibited. Hearings were had on three different days, and a large number of witnesses examined both by the petitioners and respondents. At the conclusion of the hearing the respondents admitted that their methods of refining had been objectionable and a cause of bad odors in the neighborhood, but maintained that they could and would remedy all cause of complaint in the future, and they submitted the following agreement:—

(COPY.)

To the Board of Health of the City of Boston:—

In the matter of the complaint of Dr. Winslow of the Navy Yard and others, against our petroleum refinery, recently heard by your Board in accordance with your request, we submit the following statement indicating what we propose to do to remedy or mitigate the cause of complaint against us:—

Hereafter we shall discharge none of our "sledge acid" into the dock, but shall remove the same from the refinery and from our premises to a distance where it will no longer be a source of offensiveness to the public.

Also, we shall consume, as fuel, all offensive gases generated in the process of refining.

Respectfully submitted,

W. & F. H. WHITTEMORE.

By their Counsel,

(Signed)

HORATIO E. SWASEY

BOSTON, March 10, 1883.

The board thereupon passed the following vote :—

IN BOARD OF HEALTH, March 12, 1883.

In the matter of the complaint of Geo. F. Winslow and others against W. & F. H. Whittemore, the Board having heard the parties, and duly considered the evidence in the premises, and being satisfied that the petitioners have had just cause of complaint as to the way and manner the respondents have hitherto carried on their business, and that the petitioners have been annoyed and discomforted in their dwellings by the noisome and offensive odors issuing therefrom — and the respondents having expressed their readiness and willingness to remove all just cause of complaint, and having testified that, in their judgment, the offence complained of has been due to the discharge of the spent acid, commonly called sleedge acid, into the dock (which they now propose to wholly discontinue) and to the escape of gases in the process of manufacture, which can be, and respondents propose shall be, hereafter consumed, so as to remove all just cause of complaint; therefore, voted, that further action in the premises be delayed to await the result, and test the efficiency of respondents' efforts to abate said nuisance.

A subsequent inspection of the establishment showed that the details of this agreement had been substantially complied with, and the noisome odors complained of had sensibly diminished in consequence. It may be doubted, however, whether a business of this nature can be carried on in the vicinity of dwellings without becoming a nuisance more or less serious, and requiring careful attention to prevent its becoming a positive annoyance to people dwelling in the neighborhood of the refineries.

THE ABATTOIR.

Complaints have been made to the Board that animals unfit for human food have occasionally been slaughtered at the abattoir during the past year by some of the occupants of the slaughter-houses there. The complaints have received prompt and careful attention, but no evidence has been discovered tending conclusively to substantiate these charges. The inspector at the abattoir, Mr. G. W. Boynton, testifies that none of the animals slaughtered there have escaped his observation, and that all have been up to the standard of quality during the year. Whatever irregularities may have been resorted to in the abattoir during the past year have probably occurred during the night-time, and the Board is now considering the expediency of making an additional regulation, that when any slaughtering is to be done at the abattoir in the night-time, notification thereof shall be given to the inspector appointed by this Board, in order that the animals intended for slaughter may be properly inspected. Such a regulation would doubtless do much to

remove any suspicion of any wrong-doing in the establishment.

The sanitary condition of the slaughter-houses has been preserved at a high standard, the cellars, yards, and other appurtenances have been kept in a sweet and cleanly condition, and no complaints have been made of annoyances of any kind in the neighborhood of the establishment.

But a single case of Spanish fever was reported, and one party was prosecuted and fined \$20 and costs for carrying away beef from the abattoir after it had been seized and condemned by the inspector.

The following shows the work of Inspector Boynton during the year : —

Number of animals inspected —

Cattle	.	.	.	.	.	62,418
Sheep	.	.	.	.	.	381,733
Calves	.	.	.	.	.	18,607

The seizures were as follows : —

Beef	.	.	.	.	.	9,314 pounds.
Veals	.	.	.	.	.	43 carcasses.
Sheep	.	.	.	.	.	10 carcasses.

INSPECTION OF PROVISIONS.

The duties of inspector of provisions in the city were efficiently performed by Mr. John H. Terry until the expiration of his term of office, April 1st of the present year, when the Mayor appointed Mr. Charles G. Davis to succeed him. During the eleven months in which Mr. Terry attended to the duties a large number of seizures were made; the principal commodity coming under the ban being immature veal, as in previous years. Notwithstanding the large number of seizures of this class, and the vigilance of the inspector, traffic in immature veals continues to flourish to an inordinate extent, and only the utmost watchfulness on the part of the inspector avails to repress it. The young calves are slaughtered outside the city limits, many of them outside the State, which necessitates a careful watching of the railroad stations and wharves when they are landed in the city. During Mr. Terry's term of office, 399 veals were seized as unfit for human food. Ten parties were prosecuted in court, eight of whom were convicted, and fines were imposed amounting, together with the costs of

prosecution, to \$278.25. Two parties were found not guilty; eleven persons and places were advertised under the statute requiring that the place where condemned provisions are found, and the name of every person in whose possession it may be found and condemned, or who shall be convicted of an offence under this statute, shall be published in two newspapers published in the county where the offence was committed.

In addition to the veals seized by Inspector Terry, there were also seized by him 6,555 pounds of beef, 3,567 pounds of lamb and mutton, 124 pounds of poultry, and 600 pounds of other meats. Forty crates and 10 barrels of fruit and vegetables, 100 bags of flour, 181 partridges, 220 beef livers, and 47 lobsters, were also seized and condemned.

Mr. Charles G. Davis, who entered upon the duties of the office April 1st last, continued the work with energy and fidelity. His seizures during the month of April aggregated 9,541 pounds of veal, pork and mutton, numbering 269 carcasses. He also seized 50 barrels of oysters and 538 bushels of spinach.

PUBLIC URINALS.

The public urinal at India Wharf was discontinued the past year, as the site on which it was located, being private property, was desired for other purposes. The other urinals, twenty-one in number, have undergone thorough repairs at an expense of \$2,000. Some of those longest in use had become so dilapidated as practically to require complete reconstruction, both of the building and the plumbing. This has been accomplished in several instances, and nearly all the urinals are now in a condition to require little or no repairs for some time to come. The growing use of the urinals each year emphasizes the necessity of increasing their number in all sections of the city, and the difficulty in securing suitable locations for them is the only reason why their number has not already been increased. Some of those already erected, especially the three houses for men located on the Common, have insufficient accommodations for the number of people who make use of them, and they must soon be enlarged to meet the demands they are intended to supply. In addition to the \$2,000 required for making repairs, \$706.56 was expended to pay the rates charged by the Water Department for the use of water in the urinals, and the balance of the \$5,000 appropriated for maintaining the public urinals was expended for care and superintendence. The excellent care maintained over these places by the superintendents in charge

of them has been such that complaint on account of offences arising from them have become very rare.

PUBLIC BATHS.

The sixteen free public bathing-houses were more extensively patronized last season than ever before. The following table shows the number of bathers at each of the bathing-houses maintained by the city :—

For Men and Boys.

West Boston bridge, foot of Cambridge street,	71,217
Craigie's bridge, foot of Leverett street	61,817
Charles-river bridge, near Causeway street	54,483
East Boston Sectional Dock, Border street	55,667
Mt. Washington-avenue bridge, near Federal street	49,680
South Boston, foot of L street, Dorchester Bay	124,089
Dover street, at South pier	63,291
East Boston, Maverick street	30,646
Chelsea Bridge, Charlestown	46,231

For Women and Girls.

Warren bridge, near Causeway street	47,844
East Boston Sectional Dock, Border street	29,244
South Boston, foot of Fifth street	45,800
Dover street, at South pier	20,168
Commercial Point, Dorchester	12,525
Chelsea bridge, Charlestown	22,738

For Males and Females.

Malden Bridge, Charlestown :—	
Males 41,615 ; Females, 5,167	46,782
Total	782,222
Appropriation	\$13,000
Expense per bath	.0016+

The appropriation asked for at the beginning of the year for maintaining the public baths was \$12,000. This sum would have been ample to meet the expenses of the department but for a request by the City Council to advance the wages of the employes in the department. Accompanying the request was an order for a special appropriation for \$1,000 to provide for the extra compensation, which was applied as directed.

During the bathing season, from June 1st to October 1st, twelve men, including a general superintendent, and seven women, were employed as keepers. During the winter months seven men were employed to make all necessary repairs upon the old houses; and two new floating bath-houses were built to take the place of the old ones, unfit for further use. It is creditable to the watchful care exercised by the superintendent having charge of the several bathing-houses, that no accidents, either from drowning or other cause, occurred during the year.

Bath-house Regulations.

[These apply to the management of all the houses, except as to the hours for bathing at the Malden bridge bath-house. The hours for bathing at this house are so arranged that men and boys are admitted from 5 to 8 A.M., 12 to 3 P.M., and 6.30 to 9 P.M.; women and girls from 8.30 to 11 A.M., and 3.30 to 6 P.M. Sundays — for men and boys only — from 5 A.M. to 12 o'clock M.]

The baths will be open daily, except during unfavorable tides, from June 1st to October 1st, as follows: —

MEN.

Week days, 5 A.M. to 9 P.M.
Sundays, 5 A.M. to 12 M.

WOMEN.

Week days, 6 A.M. to 8 P.M.
Sundays, 6 A.M. to 9½ A.M

Each superintendent in charge will see that the adults remain in the water not longer than thirty minutes, and children under twelve years of age not longer than fifteen minutes.

Bathers will be expected to provide their own towels and soap. Female bathers will be required to furnish suitable bathing-dresses. Those desiring towels can obtain them of the Superintendent in charge at moderate expense.

Boys and girls under fifteen years of age will not be admitted to the bath-houses after 7 o'clock P.M.; and the decision of the Superintendent in charge against admission will be final.

Each Superintendent in charge will have full charge of his premises, and authority to withhold the facilities from all not conforming to these rules; and he will be required to render every reasonable assistance to bathers.

No smoking, profanity, or noisy conversation will be allowed on the premises; and any person guilty of defacing the dressing-rooms, fences, or tanks, by writing, marking, cutting, or other misconduct, will be excluded from the baths, or arrested, according to the nature of the offense.

All questions of priority in bathing, or the use of dressing-rooms, must be referred to the Superintendent in charge, whose decision will be final.

A police officer will be in constant attendance, for the purpose of preserving order and enforcing these regulations, in concurrence with the Superintendent in charge.

By order of the BOARD OF HEALTH,

SAMUEL H. DURGIN,
Chairman.

32 PEMBERTON SQUARE, BOSTON, 1883.

PROSECUTIONS.

The whole number of prosecutions for violations of the laws and regulations pertaining to the public health, during the past year, was twenty. Thirteen of these prosecutions were for selling diseased meat or immature veal. In ten of these cases convictions were obtained, and fines and costs were imposed amounting to the sum of \$388.60.

There were five prosecutions for scattering salt upon the horse-railroad tracks, in all of which convictions were had, and fines and costs imposed to the amount of \$104.71. The sum total of all costs and fines imposed in all prosecutions during the year was \$499.03.

The prosecution against Oliver H. and Sanford Leach for rendering grease and bones, without license, pending from the previous year, was placed on file on payment of costs only, they having abandoned the business within the city limits and sold out their establishment.

TOMBS IN KEARSARGE-AVENUE BURIAL-GROUNDS.

On the 28th of July last, the Board received a petition from the citizens residing in the neighborhood of these grounds, and also from the trustees of the Roxbury Latin School, requesting that further interments in the tombs therein be prohibited, the petitioners representing that the public health was endangered by such burials.

Much the larger number of the tombs in this cemetery back directly on to the buildings and play-grounds of the Roxbury Latin School, while several of them are located in the rear of, and but a few feet distant from, occupied dwelling-houses. The doors of these tombs are all above ground and loosely fitted, so that the gases disengaged in the decomposition of the bodies readily escape into the surrounding atmosphere and are wafted, in the summer season, through the open doors and windows of the adjacent houses, and inhaled by their occupants, to their great discomfort and danger.

By chapter 182 of the Acts of 1877 (which is now embodied in sections 25, 26, and 28 of chapter 80 of the Public Statutes), the City Council is authorized to forbid future interments in any tomb within the city, upon the report of the Board of Health that the public health requires it.

Acting under this statute, the Board, after personal inspection of these tombs, reported to the City Council, August 14, 1882, that the public health requires that future interments in each and all of the tombs in Kearsarge burial-

grounds be prohibited. This communication was referred to the Committee on Health, but no further action was had thereon, except to refer the matter to the present city government, which now has it in charge.

Burials in graves in these grounds were prohibited by the City of Roxbury before annexation; but interments in the tombs, which are far more objectionable (inasmuch as there is no effectual guard against the escape of the gases, set free by decomposition, into the surrounding air), still go on, and will continue to until the City Council prohibit it. It is to be hoped such prohibition will be enforced the present year, in order that the lives of the living may not be sacrificed to the corruption of the remains of the dead.

BURIAL-GROUNDS.

The main drive-way through the Bunker Hill burial-grounds, and the two parallel walks on either side of the same, together with the walks at each end, have all been concreted, and catch-basins constructed and connected with the sewer to carry off the surface water, at an expense of \$813.15. This has made a great improvement in the appearance of the grounds and will materially lessen the labor of keeping them in good condition in the future, as the constant wash to which the drive-way and paths were before subjected by the frequent rains will be obviated.

In the Phipps-street grounds the concreting done some years since remains in good condition. Quite a number of old trees which had become decayed with age, and endangered the preservation of the head-stones, have been removed. Both of the Charlestown burial-grounds, under the care of the Board, are now in good condition.

In the city proper the burial-grounds (except that at Copp's Hill) have been attended to, under the direction of the Board, by Mr. John Reardon, whose knowledge of gardening and floriculture has enabled him to convert the borders of the Granary and King's Chapel grounds, into pleasing parterres of fragrance and beauty, for the enjoyment of the thousands who throng one of the busy thoroughfares leading through the heart of the city. These grounds, together with five others, the Central, South, Eustis street, Kearsarge avenue, and Hawes, have a total area of about eight acres, and have been in charge of the same contractor for the last four years. He has done and furnished all the labor requisite in their care, including cutting the grass frequently, raking and repairing the walks and paths, removing leaves, dead limbs, and refuse thrown into the

grounds from the street and adjoining estates ; and planting, watering, and cultivating bulbs, plants, and flowers in the Granary and King's Chapel. It may be said without exaggeration that these grounds have never been better cared for, nor presented a more attractive appearance, than during the period of his employment.

Tablets have been placed upon five of the old burial-grounds of the city during the past year, containing the names of some of the most distinguished persons whose remains are interred therein. The inscriptions upon these tablets were prepared by ex-Mayor Green, and will greatly aid strangers, visiting the city, in identifying the resting-places of the illustrious men of Boston of past generations. Copies of these tablets are given below for convenience of future reference.

GRANARY BURIAL-GROUND

1660.

WITHIN THIS GROUND ARE BURIED.

JOHN HANCOCK,

SAMUEL ADAMS,

AND

ROBERT TREAT PAINE,

Signers of the Declaration of Independence,

Governors RICHARD BELLINGHAM,

WILLIAM DUMMER,

JAMES BOWDOIN,

INCREASE SUMNER,

JAMES SULLIVAN, and

CHRISTOPHER GORE.

Lieut. Governor THOMAS CUSHING.

Chief Justice SAMUEL SEWALL.

Ministers, JOHN BAILEY,

SAMUEL WILLARD,

JEREMY BELKNAP, and

JOHN LATHROP.

GRANARY BURIAL GROUND

1660.

WITHIN THIS GROUND ARE BURIED

THE VICTIMS OF THE BOSTON MASSACRE,

March 5, 1770.

JOSIAH FRANKLIN AND WIFE,

Parents of

BENJAMIN FRANKLIN,

PETER FANEUIL, PAUL REVERE,

and

JOHN PHILLIPS,

First Mayor of Boston.

KING'S CHAPEL BURIAL GROUND

1630.

HERE WERE BURIED,

Governors of Massachusetts,

JOHN WINTHROP, 1649, JOHN LEVERETT, 1679,

WILLIAM SHIRLEY, 1771.

Lieut. Governors of Massachusetts,

WILLIAM PHILLIPS, 1827, THOMAS LINDALL WINTHROP, 1841.

Governors of Connecticut,

JOHN WINTHROP, 1676, FITZ JOHN WINTHROP, 1707.

Judges of Massachusetts,

WAIT STILL WINTHROP, 1717, ADAMS WINTHROP, 1743,

OLIVER WENDELL, 1818, THOMAS DAWES, 1825.

Ministers of Boston,

JOHN COTTON, 1652, JOHN DAVENPORT, 1670,

JOHN OXENBRIDGE, 1674, THOMAS BRIDGE, 1715.

KING'S CHAPEL BURIAL GROUND

1630.

HERE WERE BURIED

JACOB SHEAFE, 1658, JOHN WINSLOW, 1674,

MARY CHILTON, 1679, A PASSENGER IN THE
MAYFLOWER, AND WIFE OF JOHN WINSLOW.

MAJOR THOMAS SAVAGE, 1682,

LADY ANDROS, 1688,

CAPT. ROGER CLAP, 1690, THOMAS BRATTLE, 1713,

PROFESSOR JOHN WINTHROP, 1776,

JAMES LLOYD, 1831, CHARLES BULFINCH, 1844.

COPP'S HILL BURIAL GROUND

1659.

HERE WERE BURIED

Ministers,

INCREASE MATHER, 1723, COTTON MATHER, 1728,

SAMUEL MATHER, 1785, ANDREW ELIOT, 1778,

and

THOMAS LAKE, DAVID COPP, NICHOLAS UPSALL,

JOHN PHILLIPS, ANTHONY HAYWOOD, JOHN CLARKE,

and Others of the Early Inhabitants

of Boston.

ON THIS GROUND WERE PLANTED

THE BRITISH BATTERIES,

WHICH DESTROYED THE VILLAGE OF CHARLESTOWN

DURING THE BATTLE OF BUNKER HILL

June 17, 1775

ROXBURY BURIAL GROUND

HERE WERE BURIED

Governors

THOMAS DUDLEY, 1653, JOSEPH DUDLEY, 1720,
CHIEF JUSTICE PAUL DUDLEY, 1752, COL. WILLIAM DUDLEY, 1743.

Ministers,

JOHN ELIOT, THE APOSTLE TO THE INDIANS, 1690,
THOMAS WALTER, 1725, NEHEMIAH WALTER, 1750,
OLIVER PEABODY, 1752, AMOS ADAMS, 1775,
ELIPHALET PORTER, 1833,

and

BENJAMIN TOMPSON, SCHOOLMASTER AND PHYSICIAN, 1714.

DORCHESTER BURIAL GROUND

HERE WERE BURIED

Governors

WILLIAM STOUGHTON, 1701, WILLIAM TAILER, 1732.

Ministers,

RICHARD MATHER, 1669, JOSIAH FLINT, 1680.
JOHN DANFORTH, 1730, JONATHAN BOWMAN, 1795,
THADDEUS MASON HARRIS, 1842,
WILLIAM POLE, SCHOOLMASTER, 1671,
JOHN FOSTER, FIRST PRINTER OF BOSTON, 1681,
ISAAC ROYAL, 1739, JAMES BLAKE, ANNALIST, 1750,
and EBENEZER CLAPP, 1881.

Following is a list of the interments in the several cemeteries during the year 1882 : —

Calvary	2,173	Bunker Hill, R. C. .	51
Mount Hope . . .	1,617	Dorchester South .	12
Forest Hills . . .	683	Ohabei Shalom . .	10
Dorchester, R. C. .	647	Codman	22
Woodlawn	607	Gethsemane . . .	20
Mt. Auburn . . .	545	Walk Hill	4
Cedar Grove . . .	363	Bunker Hill . . .	1
Bennington-st., E. B.	144	Copp's Hill . . .	7
St. Augustine . .	106	Toll Gate	2
Phipps-st. . . .	67	St. Mary's	7
Central Ground . .	73	King's Chapel . .	0
Dorchester North .	48	Granary	4
Union Ground . .	38	Kearsarge	4
Mt. Benedict . .	31	South Ground . .	4
Evergreen	36		

SCHOOL HOUSES.

The well-founded belief that the schools furnished a medium for the spread of contagious diseases, especially diphtheria and scarlet-fever, prompted the Board to advise the school committee to provide for the frequent fumigation of the school-houses throughout the city, in order to assist in preventing the spread of these diseases. The following communication on this subject was addressed to the School Committee : —

BOARD OF HEALTH, 32 PEMBERTON SQUARE,
BOSTON, January 10, 1883.

To the Honorable School Committee : —

GENTLEMEN, — The Board of Health hereby respectfully recommend that your honorable board cause all the public school-houses in the city to be fumigated as often as once in each two weeks during the cold season ; the work to be done by the janitors on Saturdays, burning two pounds of sulphur to each one thousand cubic feet of space.

The Board of Health will cheerfully furnish the janitors with such further instructions as may be necessary or desired for the proper performance of the work.

For the Board,
(Signed) SAMUEL H. DURGIN, M.D.,
Chairman.

The communication was referred to the Committee on Accounts of the School Committee, who reported that “ as the carrying out of the plan would involve an annual expense of between \$5,000 and \$6,000 for the material required, and, in addition, would increase the labor of the janitors who would be obliged to perform the work, and also remove all the plants which might be in the buildings before the fumigation could be begun, your committee felt that it was hardly wise to sanction so large an annual outlay until it was more definitely settled that the process would effectually prevent the spread of disease. After the fumigation the buildings would require a thorough airing, to rid them of the odor of sulphur, which would necessitate the use of additional fuel to restore the rooms to their original temperature.”

We regret that favorable action was not taken on this request, as we are confident that the frequent fumigation of the public school-houses would go far to prevent the spreading of contagious diseases among the pupils. The result of Mr. Bowditch's investigation of diphtheria in East Boston, which is included in this report, confirms this belief, and we hope the lessons contained in the paper will not be lost sight of.

QUARANTINE.

Nothing unusual has transpired in the quarantine department to mark the year as particularly differing from those preceding it, except that more than the usual number of immigrants arrived at the port and an unusual number of vaccinations were performed under the regulations which were adopted by the Board early in the year.

The steamer "Samuel Little" has performed her regular service in quarantine, besides extra service for the institutions, in place of the "J. Putnam Bradlee," and in towing bath-houses for the Bathing Department in charge of this Board, effecting a material saving to the city.

Gallop's Island, with its hospitals and other buildings thereon, has been kept in its usual neat and productive state by an efficient superintendent.

The care of patients from vessels is provided for in comfortable hospitals at the shortest possible notice, and every comfort which can conduce to the benefit of the patient is provided.

A more extended account of the affairs in quarantine will be found in the appended report of the Port Physician, who, with his assistant and other officers connected with the service, has been faithful and efficient in the execution of the duties committed to his charge.

FISH PEDLERS.

An old city ordinance provides that no person shall sell or offer for sale, in any street, lane, or alley, any fish, lobsters, oysters, or shell-fish of any kind, except by permission of the Board of Health and on such conditions as they shall order. Under this ordinance the Board has required that all fish pedlers should first procure a license from this office, the conditions of which are, that the vehicle used by pedlers should be made and kept in such a condition as to prevent the escape of any of their contents, or the odor thereof. The owner or driver of every vehicle used as a fish pedler's cart was required to have the name and the number of the vehicle painted thereon. The vehicle was to be inspected the first day of every month at the city stables in North Grove street, and the licensee was required to comply with all these conditions in order to retain his license. A violation of some of these conditions by one of the licensees occasioned serious doubts on the part of the Board as to the validity of the ordinance in question, in view of the provisions of Chapter sixty-eight, Section one, of the Public Statutes, which expressly provides that any person

may go about from place to place exposing for sale and selling fruits, provisions, and other articles enumerated in the section. In order to remove any doubts as to the authority of the city of Boston to enact such an ordinance as that under which the Board has acted, the following Act was procured from the present Legislature : —

[CHAP. 168.]

AN ACT EMPOWERING CITIES TO REGULATE BY ORDINANCE THE SALE OF CERTAIN ARTICLES BY HAWKERS AND PEDLERS.

Be it enacted, etc., as follows : —

Any city may by ordinance make such regulations respecting the exposing for sale and sale within its limits by hawkers and pedlers of any of the articles enumerated in section one of chapter sixty-eight of the Public Statutes, as may be necessary and proper for preserving the public health and securing the peace and comfort of its inhabitants; and may affix penalties not exceeding twenty dollars for one offense for the violation of any such ordinance; but nothing herein shall be so construed as to authorize any city to require the payment of any fee in cases in which such authority is not now given.

Approved May 5, 1883.

Under the above act, an ordinance similar in its provisions to that now in the city ordinances would be ample to make such an ordinance perfectly valid, and the Board will ask the City Council to re-enact this ordinance in order to secure the wholesome benefits of its provisions.

APPOINTMENTS.

In April Mr. William Taylor was appointed by the Mayor and confirmed by the City Council as a member of this Board for three years from the first Monday in May 1883.

At the beginning of the year the Board organized by the choice of Dr. Samuel H. Durgin as Chairman, and Charles E. Davis, Jr., as clerk.

During the month of April the following appointments were made for the ensuing year : —

GEORGE W. FORRISTALL, as Superintendent of Health.

JOHN H. MCCOLLOM, M.D., as City Physician.

ALFRED B. HEATH, M.D., as Port Physician.

SAMUEL H. DURGIN, M.D.,
GEORGE F. BABBITT,
JAMES M. KEITH.

FINANCIAL STATEMENT.

The following is a statement of the expenses of the department for the year : —

Board of Health (salaries)	.	.	.	.	\$9,000 00
Clerk-hire	.	.	.	.	6,508 00
Inspectors of Nuisances	.	.	.	.	12,148 56
Inspector of Provisions	.	.	.	.	1,700 00
City Physician and Assistant.	.	.	.	.	3,900 00
Inspector at Abattoir	.	.	.	.	1,508 33
Messenger	.	.	.	.	485 66
Small-pox	.	.	.	.	5,059 76
Abatement of Nuisances	.	.	.	.	7,999 29
Public Urinals	.	.	.	.	5,962 80
Burial-grounds	.	.	.	.	4,841 40
Horse and Vehicle, Board of Health	.	.	.	.	454 15
Horse and Vehicle, City Physician	.	.	.	.	584 60
Stationery	.	.	.	.	160 12
Printing	.	.	.	.	823 11
Advertising	.	.	.	.	136 32
Contingencies	.	.	.	.	2,835 54
					\$64,107 64
Balance unexpended	.	.	.	.	1,292 39
Quarantine : —					
Amount appropriated	.	.	.	.	\$17,100 00
Amount expended	.	.	.	.	17,098 32
Balance unexpended	.	.	.	.	\$1 68
Evergreen Cemetery : —					
Amount appropriated	.	.	.	.	\$1,500 00
Balance from last year	.	.	.	.	54 78
Income	.	.	.	.	496 00
					\$2,050 78
Expenditure	.	.	.	.	2,011 26
Balance	.	.	.	.	\$38 52

Public Baths : —

Employés	\$9,061 50
Rents	1,355 59
Lumber	1,099 20
Sundry materials	371 43
Iron and hardware	286 41
Paints and oils	200 49
Furniture	145 48
Ice	104 90
Carting	99 43
Pile driving	51 00
Other expenses	188 37
Fuel	31 30
	\$12,995 10

RECAPITULATION.

Amount appropriated : —

Board of Health	\$65,400 00
Public Baths	13,000 00
Quarantine	17,100 00
Evergreen Cemetery	2,050 78
	\$97,550 78
Amount expended	96,212 32
Balance unexpended	\$1,338 46

Income : —

Board of Health	\$889 73
Quarantine	4,292 75
Evergreen Cemetery	550 78
	\$5,733 26

CITY PHYSICIAN'S REPORT.

CITY PHYSICIAN'S OFFICE, May 1, 1883.

To the Board of Health:—

GENTLEMEN,—I have the honor to submit the following report of this office, for the year ending April 30, 1883.

There have been 1,412 persons vaccinated, and certificates of vaccination have been given to 684 children for their admission to the public schools. In every instance where a case of small-pox has occurred, all in the immediate vicinity exposed to the contagion have been vaccinated.

One hundred and one men have been examined at the request of the Board of Fire Commissioners for appointment in the Fire Department, and 17 cases of supposed disease or injury have been investigated.

One hundred and two men have been examined for appointment on the police force, and 8 for retirement.

The bodies of 496 persons dying without a physician in attendance have been examined. These cases comprise principally those who die from chronic disease, where there has been no medical care for months previous to death, and those who die suddenly, from natural causes. In these cases a careful external examination is made, the symptoms learned, and a diagnosis sufficiently accurate for all practical purposes reached. The law requires a medical certificate of death before a permit is granted to bury a body, and these examinations are made to conform to the law as well as to collect the statistics for the bills of mortality. A tabular statement is appended.

Forty-five reports of small-pox have been investigated. Five of these were found to be small-pox, and were removed to the hospital on Canterbury street, where they all recovered. One child and one man contracted the disease in Baltimore. The contagion was traced to rags in the case of one man and one child, and, in the remaining case, that of a man, it was impossible to discover the source of the disease. The statement of the remaining forty reported cases is as follows:—

Varicella, fourteen cases; measles, eleven; one case of urticaria; syphilis, one; herpes, one; three cases of urtica-

ria due to vaccination ; scarlet-fever, four ; one case of eruption due to the use of bromide of potassium ; the use of iodide of potassium, one ; diphtheria, one ; acne, one ; and poisoning by ivy, one. It should be understood that the period covered by this report is for the financial year beginning May 1, 1882, and not the same as that covered by the mortality tables, which cover the calendar year. The latter period shows twenty-four reported cases of small-pox and eight deaths from this disease.

CITY TEMPORARY HOME.

Seventy-three visits have been made to this institution. Nine cases of confinement were attended, in two of which twins were born. Eight of the children were born alive, three were still-born. Three deaths have occurred at the home, — two infants and one adult. The two infants were foundlings, and died from inanition a few hours after being admitted. Cerebral hæmorrhage caused the death of the adult. The following diseases have been treated during the year : — Inanition, three cases ; syphilis, one ; cervical abscess, one ; diarrhœa, one ; one case of melancholia ; conjunctivitis, two ; cerebral hæmorrhage, one ; acute rheumatism, one ; diphtheria, two ; measles, three. The case of melancholia was referred to the Board of Directors of Public Institutions ; the cases of diphtheria and measles were transferred to the City Hospital.

SUFFOLK COUNTY JAIL.

In this institution there have been 476 patients treated during the year, requiring 1,735 visits. Although the number was not as large as during the year ending April 30, 1882, the diseases have been of a more serious type. Epilepsy caused the death of one man ; one woman died very suddenly of heart disease ; one man died of delirium tremens ; one woman died of phthisis pulmonalis, aggravated by a severe attack of delirium tremens ; and typhoid fever caused the death of one man. A tabular statement of the diseases treated is appended.

Dr. Morton Prince, Assistant City Physician, is deserving of especial mention, for the faithful and conscientious manner in which he has discharged the duties pertaining to his branch of the service.

Respectfully submitted,

JOHN H. McCOLLOM,
City Physician.

Report of Causes of Death investigated by the City Physician for the Year ending April 30, 1883.

DISEASES.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	Total.
I.—Zymotics.													
Cholera infantum		1	22	10	4								37
Croup					1					1		1	3
Diarrhœa				4	3			1				1	9
Diphtheria	1		1		2		1			1	1		7
Dysentery				1	2	1							4
Enteritis					2								2
Erysipelas											1		1
Pertussis			1	2									3
Puerperal fever	1		2					2			1		6
Rheumatism				1									1
Scarlatina									1				1
Typhoid fever					2								2
II.—Constitutional.													
Cancer				2	1	1	2	2				4	12
Consumption	8	13	14	8	12	6	6	11	7	5	7	9	106
Hæmorrhagic diathesis				1									1
Hydrocephalus and tubercular meningitis			2	1					1		1		5
Marasmus and scrofula	1	3	6	2	4	3	5	1	2	2	1	3	33
III.—Local.													
Apoplexy	3		2	2		1	4	1	1	2	1	1	18
Bronchitis	1		2	3			3	5	5	3	10	3	35
Chronic Bright's disease	3		1	1	5	1			1	1		1	14
Epilepsy	1												1
Heart disease	3	1	3	1	2	1	1	4	3	1	6	5	31
Hip disease				1									1
Insolation			1										1
Meningitis			1			1	1	1					4
Pneumonia	3	1			1	1	6	4	5	5	2	5	33
Ulcer of stomach			1										1
Other local diseases		1											1
<i>Carried forward</i>	25	20	59	40	41	16	29	32	26	21	31	33	373

Report of Causes of Death.—*Concluded.*

DISEASES.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	Total.
<i>Brought forward</i>	25	20	59	40	41	16	29	32	26	21	31	33	373
IV.—Developmental.													
Cyanosis	..	1	2	..	..	1	..	1	1	..	..	1	7
Inanition	1	1	4	5	1	2	3	4	1	1	..	2	25
Old age	1	1	2	4	4	3	1	1	1	1	3	2	24
Premature birth	1	5	3	..	2	..	..	1	..	..	4	..	16
Teething	..	..	..	..	..	1	..	..	..	..	..	..	1
V.—Violent.													
Accidents:—													
Fracture of femur	..	..	..	..	..	..	1	..	..	..	..	..	1
Fracture of skull	..	..	..	..	..	..	..	..	..	..	1	..	1
Opium poisoning	..	1	..	..	..	..	..	..	..	..	..	..	1
Overlaid by mother	..	..	..	..	..	1	..	..	..	..	..	..	1
Still-births	3	4	5	4	2	4	7	3	1	3	4	5	45
Unknown causes	..	..	..	..	1	..	..	..	..	..	..	..	1
Totals	31	33	75	53	51	28	41	42	30	26	43	43	496

**Report of the Sick at Suffolk County Jail for the year
ending April 30, 1883.**

DISEASES.	Remaining May 1, 1882.	Treated during year.	Recovered.	Improved.	Sent to City Hospital.	Discharged from custody while under treatment.	Died.	Remaining April 30, 1883.
General Diseases :—								
Anæmia	..	4	..	3	..	1	..	..
Erysipelas	..	2	2	..	..	..	..	..
Febricula	..	8	8	..	..	..	..	..
Fever, intermittent	..	2	2	..	..	..	..	..
“ remittent	..	3	3	..	..	..	..	..
“ typhoid	..	1	..	..	..	..	1	..
Phthisis pulmonalis	1	15	..	4	..	8	1	3
Rheumatism, acute	..	4	3	1	..	..	..	..
“ chronic	..	12	..	10	..	2	..	..
Diseases of Nerves :—								
Neurasthenia	..	6	..	4	..	2	..	..
Functional Diseases of Nervous System :—								
Delirium tremens	..	27	26	..	..	..	1	..
Epilepsy	..	6	..	..	..	5	1	..
Hypochondriasis	..	6	..	..	..	6	..	..
Lumbago	..	3	..	3	..	..	..	..
Neuralgia	..	2	..	2	..	..	..	..
Diseases of Intellect :—								
Mania	..	3	..	..	..	3	..	..
Diseases of the Heart :—								
Valvular	..	3	..	1	..	1	1	..
Diseases of Bronchi :—								
Bronchitis, acute	..	19	8	6	..	5	..	..
“ chronic	..	10	..	8	..	2	..	..
Diseases of Pleura :—								
Pleurisy	..	3	2	1	..	..	..	..
<i>Carried forward</i>	1	139	54	43	..	35	5	3

Report of the Sick at Suffolk County Jail. — *Continued.*

DISEASES.	Remaining May 1, 1882.	Treated during year.	Recovered.	Improved.	Sent to City Hospital.	Discharged from custody while under treatment.	Died.	Remaining April 30, 1883.
<i>Brought forward</i>	1	139	54	43	..	35	5	3
Diseases of Fauces :—								
Tonsillitis	..	6	6	..	..	..	..	..
Diseases of Digestive System :—								
Colic	..	6	6	..	..	..	..	..
Constipation	..	27	27	..	..	..	..	..
Diarrhœa	..	17	17	..	..	..	..	..
Dysentery	..	4	4	..	..	..	..	..
Gastritis, alcoholic	..	3	..	3	..	..	..	..
Peritonitis	..	1	..	..	1	..	..	..
Diseases of Womb :—								
Leucorrhœa	..	6	..	6	..	..	..	..
Subinvolution	..	2	..	1	..	1	..	..
Functional Diseases of Women :—								
Menorrhagia	..	8	..	4	..	2	..	2
Pregnancy	..	3	..	..	..	3	..	..
Diseases of Cutaneous System :—								
Acne	..	6	..	5	..	1	..	..
Eczema	1	3	..	2	..	1	..	1
Herpes labialis	..	1	1	..	..	..	..	..
Herpes praeputialis	..	4	4	..	..	..	..	..
Onychogryphosis	..	2	..	2	..	..	..	..
Phthiriasis	..	6	6	..	..	..	..	..
Scabies	..	3	3	..	..	..	..	..
Urticaria	..	2	2	..	..	..	..	..
Diseases of the Eye :—								
Conjunctivitis	..	8	6	2	..	..	..	..
Ecchymosis	..	12	12	..	..	..	..	..
Hordeolum	..	2	2	..	..	..	..	..
Iritis	..	3	1	..	..	2	..	..
Poisons :—								
Opium habit	..	4	..	..	..	4	..	..
<i>Carried forward</i>	2	278	151	68	1	49	5	6

Report of the Sick at Suffolk County Jail.—*Concluded.*

DISEASES.	Remaining May 1, 1882.	Treated during year.	Recovered.	Improved.	Sent to City Hospital.	Discharged from custody while under treatment.	Died.	Remaining April 30, 1883.
<i>Brought forward</i>	2	278	151	68	1	49	5	6
Surgical Diseases:—								
Abscess	..	18	14	..	..	4	..	..
Gonorrhœa	1	21	11	3	..	6	..	2
Hæmorrhoids	1	8	..	8	..	1	..	..
Otitis	..	4	2	1	..	1	..	..
Paronychia	..	3	3	..	..	..	..	..
Stricture urethral	1	4	..	4	..	1	..	..
Syphilis	2	40	..	25	..	12	..	5
Varix	..	4	..	..	..	4	..	..
Injuries:—								
Abrasions	..	20	20	..	..	..	..	..
Burns	..	2	2	..	..	..	..	..
Contusions	..	23	23	..	..	..	..	..
Fractures	..	6	6	..	..	..	..	..
Sprains	..	7	7	..	..	..	..	..
Wounds, gunshot	..	2	2	..	..	..	..	..
Wounds, incised	..	8	8	..	..	..	..	..
Wounds, scalp	..	21	21	..	..	..	..	..
Total	7	469	270	109	1	78	5	13

PORT PHYSICIAN'S REPORT.

QUARANTINE STATION,
DEER ISLAND, BOSTON HARBOR,

May 1, 1883.

To the Board of Health:—

GENTLEMEN,—I herewith transmit the report of the Quarantine Department for the year ending April 30, 1883.

During the year there has been but little sickness at quarantine, only eight cases of yellow-fever and one case of suspected small-pox (which proved to be roseola with erysipelas), requiring removal from vessels. Fifteen cases of measles were sent to Gallop's Island from the city for treatment. All of the cases taken to the island recovered.

On account of the epidemic of small-pox in Baltimore, an order was issued by your Board, January 25, 1883, requiring all vessels coming from that port to stop at quarantine. This order was rescinded April 6, following, during which time sixty-five vessels and nine hundred and eighty-four persons were inspected, one hundred and twenty-two of whom were vaccinated at this quarantine. No fee was collected from these vessels, except a fee of twenty-five cents for each person vaccinated.

During the year five vessels were detained for fumigation and observation. Seven hundred and six vessels were inspected, and eight hundred and fifty-one persons vaccinated. The amount of fees collected was \$4,292.75, which sum was turned over to the City Treasury. The steamer "Samuel Little," and the buildings on Gallop's Island, are in excellent condition.

Dr. Huse resigned the office of Assistant Port Physician, May 8, and Dr. Arthur G. Griffin was appointed to fill the vacancy.

I am indebted to Col. Guy C. Underwood, Superintendent of the Deer Island Institutions, for many favors and acts of courtesy.

In conclusion, it gives me great pleasure to acknowledge the many acts of courtesy and kindness, both official and personal, which I have received from the members of your Board.

Respectfully submitted,

A. B. HEATH,
Port Physician.

REPORT OF SUPERINTENDENT OF HEALTH.

HEALTH OFFICE, 32 PEMBERTON SQUARE,
BOSTON, May 1, 1883.

To the Honorable Board of Health: —

GENTLEMEN, — In conformity with Sect. 9 of an ordinance relating to the public health, I herewith submit my report of the expenses of this department for the year ending April 30, 1883.

Amount appropriated, 1882	\$345,000 00
Additional appropriation, 1883	28,000 00
Total amount	<u>\$373,000 00</u>
Amount expended	<u>\$372,840 09</u>
Unexpended balance	\$159 91

The above amount, \$372,840.09, was expended as follows: —

For labor in collecting and removing house dirt and ashes in City proper, South Boston, Dorchester, Highlands, West Roxbury, and Charlestown	\$115,395 60
For labor in sweeping and cleaning the streets, and the removal of snow and ice from public walks, yards, and squares	81,180 37
For labor in collection and removal of house offal from hotels, houses, stores, restaurants, in City proper, South Boston, Dorchester, Highlands, and Charlestown	63,056 76
Paid foremen, feeders, wheelwrights, blacksmiths, painters, harness-makers, watchmen, and drivers of prison carriage	23,751 45
For grain used at the city stables, south and west, Boston Highlands, and Charlestown	19 892 27
For labor in cleaning cesspools, in City proper, East Boston, South Boston, Charlestown, Highlands, West Roxbury, and Dorchester	11,646 44

New horses and exchanges	\$7,670 00
Hay and straw at City Stables, South and West, Boston Highlands, and Charlestown .	10,016 01
Official pay-roll, including Milk Inspector's office	9,156 02
For the collection and removal of ashes in East Boston	6,089 85
For stock and tools in blacksmith's shop .	3,662 87
Extra team work in collecting ashes . . .	3,676 50
For the collection of house-offalin East Boston, West Roxbury, and Brighton	2,425 00
For stock and tools in wheelwright's shop .	1,668 93
Repairs on stables	2,263 12
Street stock, consisting of shovels, pick- handles, street-hoes, broom-cord, etc. .	2,037 12
Incidental expenses : —	
Refreshments and carriage-hire .	\$782 35
Rent and care of telephone and copperas	319 86
Injury to party by city team . .	150 00
Stabling horses in East Boston and West Roxbury	120 51
Railroad tickets	27 00
Damage by city teams to buggy and stove	22 28
For groceries, consisting of salt, flour, vinegar, mustard, matches, molasses, etc., for stable use	21 76
Stove, funnel and grate	15 70
Boston Daily Advertiser, office use	12 00
Ice for office	15 00
Stove, funnel, grates, hinges, locks, butts and screws	9 88
Watering (Pemberton Sq.)	7 50
Repairs on Horticultural Hall, damaged by telephone	6 50
Clipping horse	6 00
Weekly Dial, office use	3 60
Revised Statutes (office)	2 85
Repairs on office clocks	2 25
Sealing of weights and measures	2 23
Thermometer, stable use	2 00
Mat for carriage	1 75
Washing office-floors	12 25

Washing towels and bedding	\$20 25	
		\$1,563 52
Stock and tools for harness shop		1,447 84
For fuel and gas		1,259 71
Water-rates		1,001 64
Stable stock, consisting of blankets, brushes, soap, sponge, manure-forks, curry-combs, etc.		990 76
Medical attendance on horses, and horse medi- cines		471 89
Lumber for cesspools, buckets, bails, overalls, etc.		384 46
Broom stock for sweeping streets		304 65
Paints, oils, varnish, and brushes		293 19
Milk Inspector's Department, for stationery, advertising, lactometer, and analysis of milk, Shoeing horses, West-end stable and Charles- town		285 26
		273 59
Sawing and planing cesspool and other stock		245 99
Ferry passes, for men and teams		205 00
Stock for offal teams, buckets, etc.		165 95
Stationery for office and stable use		138 12
Canvas for covering carts and baskets, for collecting ashes		128 37
Printing offal books, notices, bill-headings, and note-paper		91 84
Total		<u>\$372,840 09</u>

The amount paid into the City Treasury, and credited this department for material sold during the year, is as follows :—

Sale of house offal	\$35,839 63
Conveying prisoners	4,160 75
Sale of ashes	2,837 75
Removing ashes	2,521 74
Filling	1,725 55
Sale of manure	999 77
Sale of material	470 13
Labor	402 30
Sale of street dirt	381 06
Milk Inspector's fees	286 00
	<u>\$49,624 68</u>

There have been conveyed during the past year, from the several police-stations to the city prison, under the Court-house, 12,937 males, 3,525 females ; and for which the Police Department have been charged 25 cents per head.

There have been conveyed during the past year (without charge) county prisoners as follows :—

From Court-house to Jail	1,706
“ Jail to Court-house	806
“ Court-house to House of Correction	454
“ Court-house to steamer “J. P. Bradlee”	8,843
“ East Boston to steamer “J. P. Bradlee”	233
“ East Boston to Jail	85
“ Jail to East Boston	53
“ East Boston to House of Correction	33
“ Court-house to Boston & Albany Railroad	55
“ South Boston to boat	636
“ South Boston to Jail	160
Total number conveyed	13,064

ASHES, STREET DIRT, ETC.

Collected by city teams for the year :—

Total number of loads of ashes	159,197
“ “ street dirt	52,381
“ “ house-offal	28,385
“ “ cesspool matter	10,051
	250,014

Carts and wagons employed by this department :—

Number of ash carts	61
“ offal wagons	43
“ street carts	28
“ cesspool wagons	15
“ sweeping-machines	9
“ water carts	6
“ market wagons	1
“ prison carriages	3

STREETS.

There are employed in sweeping and cleaning the streets 190 men, 28 carts, 9 sweeping-machines, and 6 water-carts ; of this number 91 men are sweepers. The principal streets

are cleaned daily, and others twice in each week. During the winter months the teams are employed in moving house-dirt, and the sweepers in cleaning crossings and removing snow from sidewalks of public buildings. The number of miles of streets cleaned, 185 per week; the cost of labor for doing this work for the year ending April 21, 1883, \$81,180.37.

HOUSE-OFFAL.

There are employed in removing house-offal 86 men and 43 wagons. The offal is removed from dwelling-houses three times a week during the summer months, and twice a week during the winter; from hotels, markets, and restaurants it is removed daily. There are 43 districts, and each team is assigned a route. The men employed in collecting offal are required to enter the premises, collect the offal, and empty the same in wagons; when filled, to drive to one of the offal-depots owned by the city. It is there sold to farmers of adjoining towns, within a radius of 20 miles, who come with their carts to the depot for it.

The cost of the labor for this work, ending April 21, 1883, \$63,056.76.

HOUSE DIRT AND ASHES.

There are employed in removing house-dirt and ashes 61 teams, and 134 men, with 2 men to each team. This material is removed from hotels, tenement-houses, and stores twice in each week, and from dwellings once a week; there are routes, one team being assigned to each route.

The ordinances require that house-dirt and ashes shall be kept in some convenient place for collection. The men are required to enter the premises and place such vessels as contain ashes upon the sidewalk, or in passage-ways in rear; the teams follow and are loaded; the empty vessels are returned by the men to their original position. The carts, when filled, proceed to the dump and discharge their load.

Bills for the sale of ashes are forwarded to the Collector.

The cost of labor for doing this work for the year ending April 21, 1883, \$115,395.60.

CESSPOOLS.

There are employed in cleaning cesspools 46 men and 15 wagons; they are cleaned as often as required, and their contents conveyed to a dump, and immediately covered with ashes. The cost of labor for this work, ending April 21, 1883, \$11,646.44.

MECHANICS.

There are employed 13 mechanics in manufacturing wagons.

HORSE ACCOUNT, 1882.

							DR.	CR.
On hand	.	.	.	.	.	.	214	
April 28.	Bought	.	.	.	.	.	1	
May 18.	"	.	.	.	.	.	3	
	Exchanged	.	.	.	.	.		2
16.	Died	.	.	.	.	.		1
19.	"	.	.	.	.	.		1
20.	Sold	.	.	.	.	.		2
27.	Sent to Cedar Grove	.	.	.	.	.		1
June 19.	Bought	.	.	.	.	.	2	
	Exchanged	.	.	.	.	.		1
July 2.	Sold	.	.	.	.	.		1
7.	Died	.	.	.	.	.		1
21.	Bought	.	.	.	.	.	1	
27.	Sold	.	.	.	.	.		1
	Killed	.	.	.	.	.		1
29.	Died	.	.	.	.	.		1
Aug. 18.	Bought	.	.	.	.	.	3	
	Exchanged	.	.	.	.	.		1
Sept. 21.	Bought	.	.	.	.	.	2	
23.	"	.	.	.	.	.	2	
	Exchanged	.	.	.	.	.		2
Oct. 2.	Bought	.	.	.	.	.	1	
	Exchanged	.	.	.	.	.		2
7.	Killed	.	.	.	.	.		1
3.	Bought	.	.	.	.	.	1	
Nov. 21.	"	.	.	.	.	.	3	
	Exchanged	.	.	.	.	.		4
Dec. 10.	Bought	.	.	.	.	.	1	
Nov. 11.	"	.	.	.	.	.	1	
Dec. 19.	"	.	.	.	.	.	1	
	Exchanged	.	.	.	.	.		2
							236	25

1883.								
<i>Amounts brought forward</i>							236	25
Jan.	11.	Killed	.	.	.	.		1
Mar.	12.	Died	.	.	.	.		1
	26.	Killed	.	.	.	.		1
	29.	Died	.	.	.	.		1
	31.	"	.	.	.	.		1
April	10.	Killed	.	.	.	.		1
	2.	Bought	.	.	.	.	2	
	10.	"	.	.	.	.	1	
	14.	"	.	.	.	.	2	
	16.	"	.	.	.	.	2	
	28.	Killed	.	.	.	.		1
May	1.	On hand	.	.	.	.		211
							243	243

Respectfully submitted,
 GEORGE W. FORRISTALL,
Superintendent.

SCHEDULE OF CITY PROPERTY.

AT THE SOUTH, WEST, BOSTON HIGHLANDS, AND CHARLES-
TOWN STABLES.

211 horses	at	\$200 00	\$42,200 00
194 harnesses	"	25 00	4,850 00
44 collars	"	50	22 00
66 pair hames	"	4 50	297 00
4 hoisting harness	"	10 00	40 00
236 halters	"	1 00	236 00
164 strings sleigh-bells	"	75	123 00
30 shaft girths	"	1 50	45 00
34 pair reins	"	1 40	47 60
16 sweat collars	"	1 50	24 00
12 collar pads	"	20	2 40
10 horse slings	"	1 00	10 00
2 leather horse slings.	"	12 50	25 00
14 new cart breechings	"	8 75	122 50
6 new cart saddles	"	18 00	108 00
13 old cart saddles	"	3 00	39 00
10 offal breechings	"	7 00	70 00
4 rubber horse covers and oil do	"		10 00
6 pair new blinkers	"	3 25	19 50
20 martingales	"	78	15 60
14 check-reins	"	60	8 40
2 new bridles	"	5 00	10 00
1 new light harness.	"		85 00
1 lot sweeping machine pat- terns	"		100 00
11 new offal saddles	"	15 00	165 00
1 2 horse sweeping machine	"		50 00
250 lbs. offal and cesspool cast- ings	"	04	9 00
12 oil cups	"	25	3 00
7624 lbs. bass	"	13	991 12
1 hay-cutter for cutting bass			10 00
9 water carts	"	150 00	1,350 00
174 offal chisels	"	1 50	261 00

148	offal buckets	.	.	.	at	\$ 50	\$74 00
1	offal chisel handle	.	.	.	"	25	25
18	doz. offal bucket-ears	.	.	.	"	12	2 16
1	ice plane	.	.	.			2 00
5	water pots	.	.	.			5 00
4	goosenecks	.	.	.			24 00
6503	bundles broom stuff	.	.	.	"	07	455 21
85	baskets	.	.	.	"	25	21 25
12	4-bushel baskets	.	.	.	"	1 50	18 00
49	ice-chisels	.	.	.	"	2 00	98 00
55	dipping poles	.	.	.	"	2 00	110 00
97	cesspool hooks	.	.	.	"	1 25	121 25
12	cesspool tools, per set	.	.	.	"	3 00	36 00
872	lbs. axle grease	.	.	.	"	07	61 04
7	tool houses	.	.	.	"	15 00	105 00
5	lanterns	.	.	.		50	2 50
113	cart covers	.	.	.	"	1 00	113 00
55	cart covers, new	.	.	.	"	2 15	118 25
9 ¹⁵²³ ₂₀₀₀	tons hay, new	.	.	.	"	17 50	170 82
72 ¹⁹²⁶ ₂₀₀₀	tons straw	.	.	.	"	14 00	1021 48
1259	bushel oats	.	.	.	"	56	705 04
30	bushel meal	.	.	.	"	69	20 70
155	old street hoes	.	.	.	"	50	77 50
111	steel and iron shovels, new,						
	per doz.	.	.	.	"	12 00	111 00
487	steel and iron shovels, old	.	.	.	"	25	121 75
244	steel shovels	.	.	.	"	50	122 00
132	hoes	.	.	.	"	75	99 00
6	hay cutters	.	.	.	"	10 00	60 00
7	six-tined forks	.	.	.	"	1 00	7 00
169	water pails	.	.	.	"	50	84 50
4	reflector lanterns	.	.	.	"	3 00	12 00
125	feet new rubber hose	.	.	.			25 00
47	manure forks	.	.	.	"	25	11 75
21	hay forks	.	.	.	"	50	10 50
8	pair steps	.	.	.	"	3 00	24 00
1	staging	.	.	.			20 00
2	window frames	.	.	.			5 00
1	spare tool chest	.	.	.			5 00
2	spare grain chests	.	.	.			30 00
52	manure hooks	.	.	.	"	25	13 00
5	feed troughs and tools	.	.	.	"	25 00	125 00
	lot horse medicines	.	.	.			20 00
2	wheelbarrows	.	.	.			5 00
	Rubber hose (2 lots)	.	.	.			15 00
	Leather hose (lot)	.	.	.			20 00
5	tackle and falls	.	.	.			50 00

17 lbs. sponge	at	\$2 75	\$36 75
2 dust brushes			1 00
4 saddle trees	"	2 25	9 00
10 yards burlap	"	12	1 20
76 hame straps	"	25	19 00
195 woollen blankets	"	2 00	390 00
148 carts for collecting ashes and street dirt	"	75 00	1,110 00
56 one-horse wagons, for collect- ing house-offal	"	125 00	7,000 00
15 one-horse cess-pool wagons	"	125 00	1,875 00
5 express wagons	"	50 00	250 00
2 open offal wagons	"	50 00	100 00
35 cart wrenches	"	1 50	52 50
6 vehicles for carrying prisoners			1,200 00
7 open wagons	"	50 00	350 00
1 hay rigging			75 00
3 top buggies			100 00
2 covered carriages			100 00
167 sleds for conveying ashes and offal	"	40 00	6,680 00
9 sleighs	"	60 00	540 00
3 pungs			50 00
3 hand sleds for removing snow	"	3 00	9 00
92 lbs old axles	"	01 $\frac{1}{10}$	1 01
13 boxes for removing snow, ...	"	1 00	13 00
77 snow drags	"	75	57 75
1 snow plough			10 00
15 sweeping machines	"	150 00	2,250 00
100 lbs. No. 2 reeds	"	20	20 00
9 brush rolls, filled, with flanges	"	35 00	315 00
2 brush rolls without flanges, ...	"	7 00	14 00
3 lbs. brace thread	"	40	1 20
13 gallons neat's-foot oil	"	90	11 70
4 furnace and copper boilers, ...			75 00
5 hoisting blocks			8 00
1 copper boiler			10 00
4 gas lighters			4 00
2 dipping pans			10 00
8 4 tined forks	"	50	4 00
18 hay hooks	"	25	4 50
6 galvanized iron hods			2 00
188 currycombs and brushes (old)	"	10	18 80
1750 lbs. copperas	"	01 $\frac{1}{4}$	21 87
3 iron bedsteads			10 00
7 beetles	"	75	5 25

8 iron wedges	at	\$ 50	\$4 00
2 galvanized furnace boilers and stove			125 00
3 coal screens			20 00
7 ladders	"	3 00	21 00
8 grease jacks	"	2 00	16 00
2 watch clocks	"	20 00	40 00
11 hydrant wrenches	"	3 00	33 00
4 composition hydrant chucks	"	60 00	240 00
4 carriage covers	"	5 00	20 00
Stock of tools in wheel- wright's shop			125 00
74 cesspool covers	"	1 00	74 00
413 broom handles	"	30	123 90
160 offal bucket bottoms.	"	06 $\frac{1}{4}$	10 00
1 iron hydrant chuck			35 00
2 pars light shafts		1 25	2 50
11 doz. bucket handles	"	75	8 25
140 cart hind boards	"	50	70 00
1 brass flange for offal wagon			6 00
6649 feet oak boards	"	65 00 pr.M.	432 19
1300 feet cypress boards	"	40 00 pr.M.	52 00
113 mauls	"	25	28 25
196 scrapers	"	10	19 60
918 feet hickory	"	10	91 80
1 set light wheels			25 00
119 hubs	"	1 00	119 00
1000 feet unfinished stock	"	10	100 00
250 felloes	"	16	40 00
1025 spokes	"	15	153 75
6350 feet Canada pine	"	70 00 pr.M.	444 50
3 sets offal wagon wheels			125 00
3 sets buggy hubs	"	1 25	3 75
3 sets light rims	"	2 75	8 25
150 light spokes	"	08	12 00
30 lock sticks	"	75	22 50
36 pairs finished shafts	"	5 00	180 00
1 steam box			25 00
25 hind board to carts (new)	"	2 25	56 25
3 grindstones			10 00
1 pair hub raumers			20 00
1 lot old wheels			10 00
200 feet hard pine sheathing	"	50 00 pr. M.	10 00
$\frac{1}{2}$ bbl. hard pine wedges			2 50
1000 feet of ash		80 00 pr. M.	80 00
459 feet of spruce planks		17 00 pr. M.	7 80
$\frac{1}{8}$ doz. hammer handles		1 25	41

2 14-inch circles	at	\$1 75	\$3 50
18 crowbars	"	2 00	36 00
42 pickaxes	"	1 50	63 00
367 lbs. iron gutters	"	03	11 01
430 lbs. cart and wagon axles	"	05 $\frac{4}{10}$	23 22
367 lbs. wagon springs (old)	"	01 $\frac{1}{10}$	4 03
263 spruce poles	"	15	39 45
1 keg nails			3 25
100 lbs. patent shoes	"	04 $\frac{1}{2}$	4 50
60 lbs. shoe nails	"	24	14 40
125 lbs. cast steel	"	14 $\frac{1}{2}$	18 13
1924 lbs. refined iron	"	03	57 72
3094 lbs. Norway iron	"	05	154 70
1803 lbs. calking steel	"	07 $\frac{1}{2}$	135 22
866 lbs. band iron	"	03	25 98
96 lbs. cast-iron sled shoes	"	04	3 84
181 lbs. spring steel	"	07 $\frac{1}{4}$	13 15
5169 lbs. horse-shoe iron pr. lb.	"	03 $\frac{3}{5}$	186 08
4923 lbs. sharpened shoes (new)	"	12 $\frac{1}{2}$	615 37
1986 lbs. toed and heeled shoes (new) at	at	10	198 60
4073 lbs. smooth shoes (new)	at	08	325 84
208 lbs. bar shoes (new)	"	14	29 12
1 set brand irons	"		1 00
1 farrier's knife	"		1 00
6000 3-inch dog-nails	"	\$6.50 per m.	39 00
4 sets numbers	"	1.00	4 00
1 wheel machine			20 00
1 boring machine			20 00
1 tire upsetter			20 00
1 tire bender			10 00
Bolts, rivets, and lag-screws (lot)			15 00
Horse-rasps and files (lot)			20 00
1 drilling-machine			10 00
1 set small scales			6 00
2 platform "			50 00
818 lbs. castings sweeping machines at	at	04	32 72
4 letter dies	"	50	2 00
19,363 lbs. combination tire iron, ...	"	02	387 26
15 lbs. blank nuts	"	04 $\frac{1}{2}$	67
154 lbs. gray sand castings	"	06	9 24
86 lbs. oval head rivets	"	25	21 50
53 lbs. open link chain	"	15	7 95
69 lbs. tire steel	"	04	2 76
2108 lbs. old horseshoes	"	01 $\frac{1}{10}$	23 18
2551 lbs. old iron	"	01	25 51
392 lbs. new offal springs	"	08 $\frac{1}{2}$	33 32
205 lbs. old nuts and boxes	"	00 $\frac{1}{2}$	1 03

2	cross-cut saws	.	.		\$10 00
106 lbs.	cold rolled iron	.	at	09	9 54
106 lbs.	odds and ends of iron	.	"	01	9 06
	E. C. bolts (lot)	.	.		20 00
	Lot washers	.	.		1 00
	Stock and tools in harness shop,				150 00
	Office furniture, beds, bedding,				
	etc., of stables, South, West,				
	Boston Highlands, and Charles-				
	town	.	.	.	250 00
4 bags	salt	.	.	at \$1 50	6 00
5 prs.	cesspool boots	.	.	" 5 00	25 00
560	grainbags	.	.	" 10	5 60
15	poultice boots	.	.	" 3 00	45 00
10	street blankets	.	.	" 3 00	30 00
	Stock and tools in paint-shop				351 70
10	carriage weights	.	.	" 1 00	10 00
4	muzzles	.	.	" 2 00	8 00
6	horse-dusters	.	.	" 1 00	6 00
37	new blankets, carpeting	.	.	" 4 00	148 00
8	knee-robcs	.	.	" 2 00	16 00
7	buffalo robes	.	.	"	50 00
125 lbs.	buffalo hair	.	.	" 20	25 00
1	hand-cart	.	.		10 00
1	boring-lathe	.	.		10 00
1	pr. shears	.	.		1 50
4608	trimmed brooms	.	.	" 32	1,474 56
$\frac{1}{2}$	bbl. pitch-pine	.	.		2 50
4 dozen	new horse-brushes	.	.	" 17 00	68 00
7 doz.	new curry-combs	.	.	" 1 75	12 25
47 $\frac{1}{2}$	gals. winter oil	.	.	" 25	11 87
2	unfilled brush-rolls	.	.	" 16 16	32 32
2	brush flanges	.	.	" 1 14	2 28
2	cog flanges	.	.	" 84	1 68
2	stubs	.	.	" 2 60	5 20
1 doz.	pair overalls	.	.		6 00
1 doz.	pair frocks	.	.		6 00

\$87,124 11

CITY OF



BOSTON.

AN ORDINANCE

CONCERNING

PAYMENTS TO THE SINKING FUND
COMMISSIONERS.

NO. 12 OF 1883.

In the Year One Thousand Eight Hundred and Eighty-three.

AN ORDINANCE TO AMEND CHAPTER FIFTEEN OF THE
REVISED ORDINANCES.

Be it ordained by the City Council of Boston, as follows:—

SECTION 1. Chapter Fifteen of the Revised Ordinances is hereby amended, by inserting in Section Fifteen, after the word "shall," in the fourth line, the words "unless otherwise specially directed by the City Council."

IN COMMON COUNCIL, June 7, 1883.

Passed. Sent up for concurrence.

JAMES J. FLYNN, *President.*

IN BOARD OF ALDERMEN, June 20, 1883.

Concurred.

HUGH O'BRIEN, *Chairman.*

June 21, 1883.

Approved.

ALBERT PALMER, *Mayor.*

A true copy.

Attest:

FREDERICK E. GOODRICH, *City Clerk.*

CITY OF



BOSTON.

REPORT

ON

REQUEST OF FIRE COMMISSIONERS

FOR

ADDITIONAL APPROPRIATION

OF

\$ 40,000.

IN COMMON COUNCIL, June 28, 1883.

The Joint Standing Committee on Fire Department, to whom was referred the report of the Fire Commissioners on the subject of increasing certain grades of pay, having considered the subject, respectfully report in favor of granting the Commissioners' request for an additional appropriation of forty thousand dollars to provide for said increase. The following is a statement of the expenditures already made for the department, as required by Joint rule 15 : —

Statement of Expenditures, including the drafts for May and June, with the total appropriation and unexpended balance.

Object of Appropriation.	Amount Expended.
Salaries	\$64,935 29
Repairing apparatus	2,009 03
“ houses	453 69
New hose	29 80
Repairing hose	105 50
Fuel for engines and houses :	1,223 40
<i>Amount carried forward</i>	<i>\$68,756 71</i>

<i>Amount brouyht forward</i>	.	.	.	\$68,756 71
Gas	.	.	.	1,202 25
Printing, stationery, etc.	.	.	.	104 66
Furniture, bedding, etc.	.	.	.	118 62
Small supplies	.	.	.	230 32
Horses, purchase and exchange	.	.	.	2,477 50
Hay, grain, and straw	.	.	.	2,658 61
Horse-hire, keeping, etc.	.	.	.	166 86
Tools and stable furniture	.	.	.	10 91
Washing	.	.	.	437 63
Shoeing	.	.	.	663 11
Harness and repairs	.	.	.	782 94
Oils and preservatives	.	.	.	7 82
Hats, badges, buttons, etc.	.	.	.	63 12
Extra service	.	.	.	1,876 82
Tools and machinery for repair-shop	.	.	.	27 28
New apparatus	.	.	.	4,799 60
Contingencies	.	.	.	378 03
Water for houses and boat	.	.	.	1,521 08
“ and care of hydrants	.	.	.	90,180 00
				\$176,463 87
Appropriation	.	.	.	\$601,043 00
Amount expended	.	.	.	176,463 87
Balance unexpended	.	.	.	\$424,579 13

The unexpended balance will be no more than sufficient to meet the ordinary expenses of the department for the remainder of the financial year.

The committee respectfully recommend that the subject be referred to the Committee on Finance.

For the committee,

CHARLES F. QUIGLEY.

OFFICE OF THE BOARD OF FIRE COMMISSIONERS,

CITY HALL, BOSTON, May 14, 1883.

To the Honorable the Mayor and City Council of the City of Boston:—

GENTLEMEN,—In accordance with an Order of the City Council, passed and approved March 31, 1883, “that the Board of Fire Commissioners report to the City Council their reasons for not including in their estimate for Fire Department

3 REQUEST OF FIRE COMMISSIONERS.

for 1883-84, provisions for equalizing the salaries of permanent company commanders, and for placing at the rate of three dollars (\$3.00) per day the pay of permanent hosemen, ladder men, and drivers who have served two years in the department, in accordance with the suggestions of an Order on the subject passed by the City Council in December of last year," the Board of Fire Commissioners beg leave to submit the following report: That in making up their estimates for the appropriation of 1883-84, the subject-matter of the Order passed by the City Council in December last was carefully considered, but from the fact that the pay of the department is classified into several grades, and the said Order only provided for two of these classifications, it would not have been consistent to have complied with the suggestions mentioned in the Order and not to have made the pay of the other grades in conformity, and although the Board of Fire Commissioners were disposed to increase the pay of the several grades uniformly, the required amount of money to accomplish it (some \$58,000) seemed a large amount to increase the appropriation for salaries at a time when a general reduction of salaries in the several departments was imminent.

In view of the fact that action has already been taken by the City Council in the classifications mentioned in the Order, by which the pay of company commanders permanently employed has been equalized, and the pay of permanent hosemen, ladder men, and drivers who have served two years has been fixed at the rate of three dollars per day, this Board would recommend that an additional appropriation be made to the amount of \$40,000, in order that the remaining grades of pay be increased in the same ratio.

Respectfully submitted,

H. W. LONGLEY,

Chairman.

CITY OF



BOSTON.

FIFTH ANNUAL REPORT

OF THE

Board of Police Commissioners,

MAY 1, 1883.

POLICE COMMISSIONERS' OFFICE,
7 PEMBERTON SQUARE, May 1, 1883.

To the Honorable the City Council:—

In accordance with the provisions of the ordinance in relation to the Police Department, the Board of Police Commissioners have the honor to submit the following report of the doings of the department for the year ending April 30, 1883:—

Number of members of the department allowed by law, exclusive of clerks employed on licenses	779
Whole number of such members on duty, May 1, 1883	759
Number of officers discharged during the year	19
Number of officers resigned during the year, died	11
retired on pension	9
	10
	—
	49
	—
	710

Number of officers appointed during the year	.	.	68
Number clerks employed on licenses	.	.	3
Number of officers promoted to the rank of Captain during the year	.	.	0
Number of officers promoted to the rank of Lieutenant during the year	.	.	0
Number of officers promoted to the rank of Sergeant during the year	.	.	0
Whole number of officers promoted during the year	.	.	0
Whole number of officers reduced in rank during the year	.	.	0

On May 1, 1883, there were 779 members of the department on duty, as follows :—

At City Hall	36
1 Superintendent of Police.	
1 Deputy Superintendent of Police.	
1 Chief Inspector.	
6 Inspectors of Police.	
1 Inspector of Hackney-Carriage Licenses.	
1 Inspector of Wagon Licenses.	
1 Inspector of Pawnbrokers.	
1 Inspector of Claims.	
1 Probation Officer, to attend cases in court.	
2 Lieutenants.	
1 Clerk to Superintendent.	
1 Sergeant (Property Clerk).	
1 Sergeant, to collect evidence for Medical Examiners.	
1 Sergeant on special duty, street railway service.	
1 Sergeant on messenger service.	
1 Sergeant on special duty, at various Police Divisions.	
1 Assistant to Inspectors of Carriage and Wagon Licenses.	
1 Assistant to Inspector of Pawnbrokers.	
1 Patrolman on special duty at Superintendent's office.	
6 Patrolmen in Inspectors' office.	
5 House Watchmen.	
At City Prison	4
1 Keeper of city lock-ups.	
2 Assistant Keepers of city lock-ups.	
1 Steward of city lock-ups.	
At School Committee rooms	1
1 House Watchman.	
At Public Library	1
1 House Watchman.	

At Probate Office 2
 2 House Watchmen.

At Liquor Storehouse 1
 1 House Watchman, in charge of seized liquors.

At Commissioners' office 1
 1 Patrolman on messenger service.

—
46

At Police Divisions, as follows : —

Number of Divisions.	Captains.	Lieutenants.	Sergeants.	Patrolmen.	Total.
1	1	2	3	53	59
2	1	2	3	68	74
3	1	2	3	49	55
4	1	2	3	74	80
5	1	2	3	61	67
6	1	2	3	51	57
7	1	2	3	33	39
8	1	3	4	25	33
9	1	1	3	38	43
10	1	2	3	42	48
11	1	2	3	26	32
12	1	2	3	35	41
13	1	2	3	29	35
14	1	2	3	18	24
15	1	2	3	40	46
Commissioners' office					
Totals	15	30	46	642	733
Officers of rank on special service at Superintendent's office and elsewhere . .					46
Total					779

Special officers appointed 57

"Department" Police Officers (in the employ of the city in different departments) appointed 2

Railroad Police Officers appointed 61

Statement of the Expenditures of the Department (exclusive of liquor licenses), during the Year ending April 30, 1883.

For pay of officers	\$813,135 46
fuel and gas for stations and City Prison,	12,081 40
water and ice for “ “ “	1,683 01
furniture and bedding for stations and City Prison	3,813 22
badges, buttons, wreaths, clubs, and belts, etc., etc.	1,476 79
printing and stationery, postage and telegraphing	3,228 19
care and cleaning of stations and City Prison	8,767 28
repairs of stations and City Prison .	1,751 93
supplies and repairs of police steamer .	4,981 38
care and repairs of police telegraph, lines and apparatus	1,665 85
keeping of 19 police horses, repairs of equipments and vehicles	8,048 29
purchase of — horses	1,275 00
flags and flag-staffs, ropes and stakes, etc., etc.	434 82
carting prisoners from stations to courts,	3,972 65
feeding prisoners	1,160 40
medical attendance on sick and injured persons	1,899 59
horse and carriage hire	230 13
pursuit and detection of criminals . .	1,729 29
cloth for uniforms	7,925 85
pensions of retired officers	21,268 27
 Total	 \$900,562 79

Expenditures by months —

May, 1882	\$72,411 76
June, “	72,018 50
July, “	74,415 48
August, “	76,825 31
September, “	75,153 90
October, “	74,303 08
November, “	79,115 72
December, “	73,473 64
January, 1883	76,097 62
February, “	78,056 44

March,	1883	.	.	.	.	.	72,049	53
April,	"	.	.	.	.	.	76,641	81
Total							\$900,562	79

There has been earned and collected by the department during the year the sum of \$31,389.84, which has been turned into the City Treasury, and credited as follows:—

To Police Department—

For all licenses (except for sale of liquor)	\$8,913	60
sale of unclaimed prop- erty, old junk, etc.	340	59
extra services of officers	10,020	65
		<u>\$19,274 80</u>

To School Department—

For dog licenses issued	12,115	00
		<u>\$31,389 84</u>

POLICE WORK DURING THE YEAR.

The following statements show the work performed by the Police Department during the year ending April 30, 1883:—

Number of arrests on warrants	4,676
Number of arrests without warrants	26,001
Number held for trial	26,107
Number discharged on examination	4,570
Number of males	25,161
Number of females	5,516
Number of foreigners	15,917
Number of non-residents	8,845
Number of minors	4,538

Arrests by Police Divisions.

Division.	Males.	Females.	Total.
First	5,609	1,714	7,323
Second	1,085	133	1,218
Third	3,511	1,159	4,670
Fourth	3,804	760	4,564
Fifth	1,916	500	2,416
Sixth	1,695	259	1,954
Seventh	996	107	1,103

Eighth	1,110	149	1,259
Ninth	975	147	1,122
Tenth	1,213	184	1,397
Eleventh	543	39	582
Twelfth	449	60	509
Thirteenth	229	17	246
Fourteenth	302	30	332
Fifteenth	1,312	174	1,486
Supt. office (Inspectors)	388	108	496
Total	25,137	5,540	30,677

Complaints on which Arrests were made.

Accessory to larceny	3
Accessory to manslaughter	2
Adultery	40
Advertising a lottery	1
Aiding seamen to desert	3
Arson	2
Abandoning child	3
Assault and battery	2,309
Assault, felonious	181
Assault, indecent	12
Assault on officer	35
Assuming to be an officer	3
Attempt to break and enter a building	11
Attempt to break and enter R.R. car	5
Attempt to extort money	1
Attempt to commit larceny	18
Attempt to murder	1
Attempt to commit rape	6
Attempt to pick pocket	9
Attempt to defraud	1
Attempt to rescue prisoner	30
Attempt to commit suicide	1
Attempt to kidnap child	2
Attempt to pass counterfeit money	1
Attempt to pass forged check	1
Attempt to rob	11
Attempt to pass worthless check	5
Bastardy	9
Being present at game	12
Being present at prize fight	4
Breaking and entering	55
Bigamy	2
Burglary	3
Carrying concealed weapons	8

Common beggars	8
Common brawlers	17
Common drunkards	169
Conspiracy to defraud	3
Contempt of court	17
Concealing leased property	4
Cruelty to animals	28
Criminal libel	1
Default warrant	93
Defrauding an innholder	3
Delirium tremens	10
Deserters	60
Disorderly	634
Disturbing peace	222
Disturbing public school	8
Drunkenness	18,466
Disturbing public meeting	36
Embezzlement	127
Escaped convicts	10
Evading car-fare	27
Evading carriage-fare	17
Fast-driving	22
Forgery	26
Fornication	70
Fraud	82
Fugitive from justice	1
Gambling	31
Gaming on Lord's Day	51
Having burglar's tools	1
House-breaking	72
Idle and disorderly	137
Incendiary	5
Indecent exposure	21
Insane	300
Keeping houses of ill-fame	63
Keeping hotel without a license	1
Keeping gambling-house	1
Keeping noisy and disorderly houses	18
Keeping a lottery	6
Keeping a liquor nuisance	3
Larceny	1,742
Larceny, felonious	379
Lewd and lascivious	39
Letting house for unlawful purpose	1
Mayhem	3
Malicious mischief	326
Malicious trespass	17

Manslaughter	8
Murder	10
Mutiny	3
Night-walking	178
Neglected children	25
Non-payment of taxes	1
Peddling	4
Perjury	2
Passing counterfeit money	13
Passing forged check	1
Profanity	10
Picking pockets	5
Obstructing horse-railroad	5
Obstructing an officer	2
Polygamy	5
Prize-fighting	1
Promoting a dog-fight	2
Rape	6
Receiving stolen goods	40
Refusing duty as seaman	1
Resisting an officer	2
Robbery	100
Refusing to assist an officer	3
Refusing to support family	16
Runaways	145
Rescuing prisoners	9
Selling leased goods	3
Selling mortgaged goods	1
Selling obscene books	1
Shop-breaking	239
Stealing ride	33
Stubborn children	95
Suspicion larceny	313
Suspicion of breaking and entering	3
Suspicious persons	1,413
Suspicion of robbery	1
Suspicion of murder	3
Setting fire to dwelling	1
Subornation of perjury	2
Smuggling	2
Unlawfully taking clams from Thompson's Island	3
Threats	73
Truants	64
Tramps	3
Vagrancy	179
Violation city ordinance	696
Violation dog law	9

Violation liquor law	295
Violation harbor regulations	1
Violation health law	3
Violation railroad law	30
Violation Sunday law	52
Violation Lord's Day	4
Violation U.S. postal law	1
Violation screen law	1
Witnesses	387
Warrant of indictment	1
Total	<u>30,677</u>

Arrests Classified.

Offences against the person	22,573
Offences against property	3,311
Offences which cannot properly be classified under either of those heads	4,793
Total	<u>30,677</u>

Nativity of Prisoners.

United States	14,435
Canada	2,180
Ireland	11,010
England	1,314
France	135
Germany	384
Italy	117
Portugal	24
Sweden	221
Scotland	503
Spain	19
Norway	60
Switzerland	5
Africa	7
Denmark	31
Wales	15
Belgium	7
Holland	10
Russia	104
Poland	27
Greece	1
Australia	1
Arabia	2
China	29

West Indies	32
South America	2
Austria	1
Turkey	1
Total	<u>30,677</u>

MISCELLANEOUS BUSINESS.

Accidents reported	1,502
Buildings found open and secured	2,478
Dangerous buildings reported	22
Dangerous chimneys	19
Dead bodies found	119
Defective cesspools reported	100
Defective drains and vaults reported	173
Defective fire-alarms and clocks reported	16
Defective gas-pipes reported	51
Defective hydrants reported	28
Defective lamps reported	2,522
Defective streets and sidewalks reported	9,514
Defective water-pipes reported	125
Disturbances suppressed	3,715
Extra duties done by officers	13,457
Fire-alarms given	424
Fires extinguished without alarm	515
Foundlings	36
Intoxicated persons assisted home	939
Lost children restored	1,499
Rescued from drowning	36
Sick and injured persons assisted	874
Ambulance	509
Stray teams put up	285
Street obstructions removed	31,813
Water running to waste reported	310
Amount of property taken from prisoners and lodgers and restored to them	\$57,097 25
Amount of property reported stolen in the city, ...	\$125,809 08
Amount of property recovered, which was stolen in and out of the city	\$128,198 96
Amount of fines imposed by the courts	\$6,888 81
Amount of imprisonment by the same	1,600 yrs. 9 mos.
Number of days' attendance in court by officers, ...	20,690
Amount of witness fees earned by them	\$20,497 00
Amount received for dog licenses issued	\$12,115 00

Hackney-Carriage Licenses.

Whole number of licenses granted during the year,	970
“ “ transferred from one party or from one location to another . . .	29
Whole number of licenses refused . . .	13
“ “ cancelled . . .	16
Whole number of applications received, investigated, and reported upon by the Inspector having charge of this department . . .	1,028
Total amount of fees collected by him . . .	\$970 00

Estimated value of property under charge of Inspector of Carriages :—

11 flagstaffs @ \$400 . . .	\$4,400 00
6 “ @ \$150 . . .	900 00
13 flags . . .	420 00
1 police tent . . .	150 00
130 wooden stakes . . .	65 00
12 iron “ . . .	24 00
13 “ chains . . .	65 00
2 top malls . . .	6 00
3 sledge-hammers . . .	6 00
1,000 fathoms loose rope . . .	100 00
3 old flags . . .	6 00
	\$6,142 00

Wagon Licenses.

Whole number of licenses granted during the year,	3,638
“ “ transferred from one party or from one location to another . . .	5
Whole number of licenses cancelled . . .	40

Whole number of applications received, investigated, and reported upon by the Inspector having charge of this department . . .	3,683
Total amount of fees collected by him . . .	\$3,638 00
Number of complaints investigated . . .	246

Pawnbroker's, Second-hand Dealer's, and Auctioneer's Licenses.

Number of licenses issued by the Police Commissioners between May 1, 1882, and May 1, 1883 :—

Pawnbroker's licenses . . .	69
Second-hand articles licenses . . .	220

Second-hand junk licenses	346
Second-hand clothing licenses	86
Auctioneer's licenses	110
Making the total number of licenses of these classes issued during the year	831
Total number of applications received, investigated, and reported upon by the Inspector having charge of this department	853
Total amount of fees collected by him	\$2,148 00
Number of complaints against licensed places in- vestigated by him	456
Amount of stolen property recovered by him	\$9,763 00

Intelligence Office, Billiard, and Bowling Licenses.

The number of licenses issued by the Police Commissioners between May 1, 1882, and May 1, 1883, is as follows :—

Intelligence office licenses granted	83
“ “ “ transferred	12
“ “ “ refused	1
“ “ “ cancelled	2
Billiard, pool, and sippio-table, and bowling-alley licenses granted	730
Whole number of licenses of these classes issued during the year	813
Total number of applications received, investigated, and reported upon by the Inspector having charge of this department	
Amount received for amusement and exhibition licenses	\$496 00
Not previously accounted for	\$151 00
Total amount of fees collected by him	\$2,308 20
Amount received, 38 record books furnished by the city to Intelligence Office licensees	\$35 20
Number of complaints against Intelligence Offices investigated by the inspector during the year	75
Number of applications for amusement and exhibi- tion licenses investigated and reported on	496
Number of applications for fish peddler's permits and grease collector's permits reported on by Police and referred to the Board of Health	120

Statement of Issue and Expenses of Soup for the Poor, 1882.
— Time of Delivery, January 3 to March 15 inclusive,
72 days.

Gallons made	.	.	.	.	.	.	12,482
Families fed	.	.	.	.	.	.	17,101
Meals issued to families	.	.	.	.	.	.	77,533
“ “ individuals	.	.	.	.	.	.	0
Total amount expended	.	.	.	.	.	.	\$2,399 82
Balance unexpended	.	.	.	.	.	.	100 18
Total appropriation	.	.	.	.	.	.	<u>\$2,500 00</u>
Average cost per gallon	.	.	.	.	.	.	19.3
“ “ meal.	.	.	.	.	.	.	3.1

LODGERS.

Number lodged at station-houses	.	.	.	.	.	.	2,301
Number sent from stations to Hawkins-street Lodge,	.	.	.	.	.	.	15,451
Males	.	.	.	.	.	.	17,530
Females	.	.	.	.	.	.	222
Americans	.	.	.	.	.	.	8,150
Foreigners	.	.	.	.	.	.	9,602
Non-residents	.	.	.	.	.	.	16,445
Minors	.	.	.	.	.	.	2,182

Nativity of Lodgers.

United States	.	.	.	.	.	.	8,153
Canada	.	.	.	.	.	.	1,435
Ireland	.	.	.	.	.	.	4,839
England	.	.	.	.	.	.	2,107
France	.	.	.	.	.	.	46
Germany	.	.	.	.	.	.	317
Italy	.	.	.	.	.	.	34
Portugal	.	.	.	.	.	.	13
Sweden	.	.	.	.	.	.	181
Scotland	.	.	.	.	.	.	420
Spain	.	.	.	.	.	.	11
Norway	.	.	.	.	.	.	17
Switzerland	.	.	.	.	.	.	5
Africa	.	.	.	.	.	.	16
Denmark	.	.	.	.	.	.	23
Wales	.	.	.	.	.	.	24
Belgium	.	.	.	.	.	.	8
Russia	.	.	.	.	.	.	27
Poland	.	.	.	.	.	.	4

West Indies	3
Holland	25
South America	7
Turkey	1
Greece	4
Hungary	1
China	1
Total	17,722

PROBATION OFFICER.

Capt. Edward H. Savage has performed the duties of probation officer during the year in his usual very satisfactory manner, and reports the work done by him as follows:—

Number of persons remaining in care January 1, 1882	154
Number placed on probation during the year	608
Total	762
Number of cases disposed of during the year	540
“ “ remaining in care December 31, 1882	213
Number of probation persons who ran away to escape surrender	9
Total	762
Number of persons that have done well and been discharged by court	348
Number of persons sent to their homes in the country	89
Number of persons sent to sea	7
Number of persons sent to charity homes	41
Improved more or less	478
Number proved incorrigible and surrendered	51
“ left the city, whereabouts unknown	9
Lost	60
Number of times in attendance at the Superior Court	145
Number of times in attendance at the Central Municipal Court	295
Number of times in attendance at the outer District Courts	48

Number of visits made to the city prison	358
“ “ to the homes of persons in care	941
“ “ at office by persons in care	948
Amount of bail furnished	\$48,850 00
Expenses in sending persons to their homes	\$37 15

DOG LICENSES.

Statement of dog licenses issued at the several Police Stations during the year ending April 30, 1883 :—

Division.	Males.	Females.	Total.	Amount received.
1	116	21	137	\$337
2	65	14	79	200
3	274	44	318	768
4	351	56	407	982
5	371	65	436	1,067
6	204	33	237	573
7	276	42	318	762
8	12	1	13	29
9	442	56	498	1,164
10	528	57	585	1,341
11	600	62	662	1,510
12	241	36	277	662
13	497	48	545	1,234
14	245	25	270	615
15	333	42	375	876
Total	4,555	602	5,157	\$12,120
Less worthless money				5
				\$12,115

HARBOR POLICE.

The statistics below show the work done by the Harbor Police during the past year. The steamer "Protector" has been constantly employed doing its own and the work of other departments, when for any reason the boats belonging to them have not been in use. The work of the Harbor Police increases from year to year as the city increases in size, and in the amount of business done within its limits. The development of the various railroad properties along the water

front, involving a corresponding development of the shipping interest, and the constantly growing tide of summer travel to and from the various seashore resorts, require careful supervision on the part of the police to insure public safety and good order. The Harbor Police has performed its various duties most satisfactorily and with hardly a complaint against it for any cause whatever.

The special duties performed by the Harbor Police during the year, as reported by Captain Goold, are as follows : —

Value of property, consisting of float-stages, boats, rigging, etc., recovered	\$3,188 12
Number of vessels boarded, from foreign parts, ...	1,601
Number of vessels ordered from the channel to the proper anchorage	2,039
Number of vessels moved from channel with steamer	28
Alarms of fire attended on water-front	83
Fires extinguished on board vessels (no alarm)	2
Boats challenged	1,372
Sick and injured persons assisted	43
Cases investigated	300
Dead bodies recovered	13
Rescued from drowning	37
Vessels ordered to cockbill yards	279
Vessels reported to City Physician	173
Number of arrivals from foreign ports during the year : —	
Steamers	495
Ships	27
Barks	296
Brigs	299
Schooners	484
Number of arrivals from domestic ports, vessels of all kinds	7,768
From the British Provinces	1,175
Total foreign and domestic ports	10,554

The following table gives the statistics of crime in this city during the past twelve years, — 1870–1882, inclusive : —

COMPARATIVE STATISTICS OF CRIME FOR ELEVEN YEARS, 1871-1882, INCLUSIVE.

Year.	Estimated Population.	Arrests.	Females.	Minors.	Non-residents.	Assaults.	Larcenies.	DRUNK AND DISORDERLY.		Night walk- ing.	Violation City Ordinances.	House break- ing.	Robbery.	Burglary.	Arson.	Murder.	Property Stolen.	Property Recovered.	Fines Imposed.	Years' impris- onment.
								Arrested.	Helped Home.											
1871. . . .	265,000	25,201	5,673	4,501	5,568	1,806	1,372	18,089	1,918	105	461	18	68	14	1	8	\$60,018	\$71,151	\$60,370	1,131
1872. . . .	285,000	27,902	5,733	5,320	6,774	2,019	1,638	16,612	1,778	173	371	40	45	12	5	10	63,801	70,014	69,746	1,462
1873. . . .	300,000	27,845	5,677	5,225	6,149	2,256	1,914	16,810	1,622	128	490	27	59	11	6	12	78,225	68,229	70,042	1,733
1874. . . .	337,000	29,799	6,036	5,961	5,422	2,512	2,007	18,090	1,234	127	540	71	64	22	10	10	78,485	86,150	73,559	2,136
1875. . . .	342,000	30,445	6,087	5,382	5,532	2,637	2,129	16,645	792	317	651	47	71	13	6	15	63,339	100,824	102,509	2,118
1876. . . .	250,000	30,041	5,819	5,417	6,118	2,557	2,250	15,067	681	322	544	107	66	23	2	14	57,083	57,994	153,801	2,698
1877. . . .	365,000	26,683	5,626	4,915	5,190	2,481	2,347	14,373	726	269	294	90	50	16	9	6	76,940	58,398	80,057	2,061
1878. . . .	375,000	25,817	5,286	4,572	4,700	2,320	2,078	13,976	887	295	434	82	48	14	7	8	65,672	88,505	80,969	1,829
1879. . . .	385,000	24,507	4,968	3,783	5,880	2,012	1,782	14,267	1,264	184	640	63	49	10	2	6	63,902	67,659	63,787	1,660
1880. . . .	362,000	27,660	5,306	4,196	7,128	2,491	1,992	17,329	1,377	147	608	32	48	10	3	3	88,353	79,647	57,322	1,821
1881. . . .	365,000	30,777	5,445	4,730	8,419	2,648	2,046	19,360	1,157	138	712	79	69	16	3	11	137,763	108,833	67,883	1,977
1882. . . .	378,000	30,677	5,503	4,538	8,845	2,537	2,121	18,466	939	178	696	72	100	3	.	10	125,809	128,198	68,888	1,600

INSPECTORS.

The work of this department will be found to compare favorably with that done in previous years. The Board recommends, however, a change in the ordinance, by which, instead of the present organization, the force of the office shall consist of one Chief Inspector and nine Inspectors.

The report of Captain Ham, Chief Inspector, for the year, is as follows :—

No. of persons arrested, principally for felonies,	467
Fugitives from justice from other States arrested and delivered to officers from those States	12
Criminals from other States arrested on Governor's requisition	7
No. of cases investigated	1,131
No. of days spent in court by Officers	804
Amount of fees earned by Officers	\$825 50
Amount of stolen property recovered	46,429 64
Amount of fines imposed by the court	1,714 00
No. of years of imprisonment imposed by court	192 $\frac{3}{12}$

REGULATION OF STREET CARS.

Sergeant Warren and his squad have, during the year, performed their duties in the usual satisfactory manner. The number of cars run in the streets have increased materially, and the duties of the officers have increased correspondingly.

STREET RAILWAY LICENSES.

Not previously accounted for	2,419
Number of street-railway licenses granted since Dec. 1, 1882	656
Number of street-railway licenses cancelled and surrendered	1,012
Number of street-railway licenses renewed	10
Total number of fees	\$768 75
Private detective licenses granted	4
Not previously accounted for	2
Amount of fees	\$60 00

THE GOLDTHWAIT DEFALCATION.

The attention of this Board was first called to the account of Francis J. Goldthwait by a variance in the Annual Report of this Board for 1881 and 1882, in which said Goldthwait reported that he had received from Street Railway Licenses the sum of one hundred and forty-six and $\frac{50}{100}$ dollars (\$146.50), which amount, whether correct or not, should have been paid to the City Collector and should have appeared in the Auditor's Report, in which no mention was made of the sum as stated in our report. An investigation proved that Mr. Goldthwait had, from the first month of his appointment up to the discovery of this discrepancy in his accounts, appropriated to his own use, at sundry and various times, sums to the total amount of \$775.75. On being charged with the defalcation he admitted his guilt, refunded the money, and was immediately discharged. The entries covering this matter are on pages 13 and 18.

PENSIONS.

During the year four pensioners have died, ten have been placed on the pension-list, making the total number of pensioners, including Enos Wasgatt, who receives \$3 per day, and Samuel B. Ross, who receives \$1.50 per day, by special votes of the City Council, sixty-three, necessitating an annual expenditure of \$24,089.99. The Commission, as to pensions, have followed out the principles laid down in previous reports, and pensioned officers only in cases where there have been long and meritorious services, or where the person pensioned has been disabled by extraordinary causes out of the common line of his duty. It will be seen that the amount paid for pensions increases, and there now being no relief fund from which any of it can be drawn, it must be paid out of the general appropriation each year.

The pension roll now stands as follows : —

PENSIONED OFFICERS.

Name.	Position.	Age.	Years of Service.	Amount of Pension.	Date of Retirement.	Remarks.
Adams, James	Patrolman, Lieut., Sergt. .	64	36 years	\$365 00	Oct. 18, 1878.	Permanently incapacitated for duty.
Adams, Thomas S.	Patrolman	62	23 years	365 00	Oct. 18, 1878.	" " "
Aiken, Jonathan	Patrolman	68	24 years	365 00	Oct. 18, 1878.	" " "
Bean, Russell T.	Patrolman	50	13 years	365 00	Oct. 18, 1878.	Disabled while in actual performance of duty.
Benner, Lewis W.	Patrolman	54	15 years	365 00	April 7, 1883.	Permanently incapacitated for duty.
Brackett, Joseph	Patrolman	50	16 years	365 00	Dec. 15, 1881.	" " "
Brennan, Dennis C.	Patrolman	53	17 years	365 00	Mar. 17, 1879.	" " "
Butler, John	Patrolman	59	15 years	365 00	Oct. 18, 1878.	" " "
Capen, Moses L.	Patrolman	70	30 years	365 00	Oct. 18, 1878.	" " "
Chadbourne, William	Patrolman, Lieut., Capt. .	59	24 years	365 00	Oct. 18, 1878.	" " "
Cobb, Hiram	Patrolman	59	22 years	365 00	Oct. 18, 1878.	" " "
Cook, John L.	Patrolman, Sergt., Lieut. .	64	37 years	365 00	Oct. 18, 1878.	" " "
Crocker, David P.	Patrolman	65	24 years	365 00	Oct. 18, 1878.	" " "
Drake, Amos G.	Patrolman	65	17 years	365 00	Dec. 15, 1881.	" " "
Drew, Alfred R.	Patrolman, Sergt., Lieut. .	59	20 years	425 00	Apr. 20, 1883.	" " "
Dunbar, Abraham M.	Patrolman	43	13 years	365 00	Oct. 18, 1878.	Disabled while in actual performance of duty.
Emerson, George	Patrolman and Sergt. . . .	57	18 years	365 00	Oct. 18, 1878.	Permanently incapacitated for duty.
Farrell, John C.	Patrolman	41	11 years	365 00	Dec. 8, 1882.	" " "
Fitzgerald, William	Patrolman	60	15 years, 6 mos.	365 00	Oct. 18, 1878.	" " "
Folsom, Hawley	{ Patrolman, Sergeant, } { Lieutenant and Captain }	60	30 years	365 00	Apr. 29, 1882.	" " "

Gove, Jonathan S.	Patrolman	57	20 years	365 00	Oct. 18, 1878.	Permanently incapacitated for duty.
Griggs, Robert D.	Patrolman	59	26 years	365 00	Dec. 9, 1882.	"
Hanscom, Eben	Patrolman	55	19 years	365 00	Nov. 5, 1882.	"
Hicks, William E.	Patrolman	57	22 years	365 00	Mar. 17, 1879.	"
Hill, William B.	Patrolman	57	9 years	365 00	Oct. 18, 1870.	Disabled while in actual performance of duty.
Hodge, Oliver H. P.	Patrolman	53	17 years	365 00	May 17, 1882.	Permanently incapacitated for duty.
Hunkins, John H.	Patrolman	66	28 years	365 00	Oct. 18, 1878.	"
Hunt, Warren	Patrolman	74		365 00	Apr. 13, 1882.	"
Hurley, John	Patrolman	77	52 years	365 00	Oct. 18, 1878.	"
Hutchins, Calvin	Patrolman	62	33 years	365 00	Oct. 18, 1878.	"
Kendall, William	Patrolman	60	26 years	365 00	Nov. 5, 1882.	"
Lewis, Stephen L.	Patrolman and Sergt.	50	19 years	365 00	Oct. 18, 1878.	"
Leighton, Leonard	Patrolman	63	24 years	365 00	May 8, 1882.	"
Lunt, Luther	Patrolman	69	24 years	365 00	Oct. 18, 1878.	"
Marsh, Harrison	Patrolman and Lieut.	60	29 years	365 00	Oct. 18, 1878.	"
Maynard, George S.	Patrolman	64	23 years	365 00	Mar. 3, 1883.	"
Macdonald, Abel B.	Patrolman	47	20 years	365 00	Oct. 31, 1879.	"
McNamara, Michael	Patrolman	52	17 years	365 00	Oct. 29, 1881.	"
Meek, John	Patrolman	52	12 years	365 00	Apr. 14, 1882.	"
Moulton, James F.	Patrolman	54	17 years	365 00	Oct. 31, 1879.	"
Ostrander, Albert	Patrolman	69	25 years	365 00	Oct. 18, 1878.	"
Paine, Charles L.	Patrolman	62	17 years	365 00	Oct. 18, 1878.	"
Palmer, Samuel	Patrolman	70	18 years	365 00	Mar. 17, 1879.	"

In the judgment of the Board Enos Wasgatt, who receives \$3.00 per day, and Samuel B. Ross, who receives \$1.50 per day, should be taken from the active list and placed on the general or special pension-roll, as, in the judgment of the City Council, may be deemed most expedient.

SALE OF INTOXICATING LIQUORS.

The number of licenses granted between May 1, 1882, and May 1, 1883, is as follows:—

1st class, innholders	56
1st class, victuallers	1,430
2d class “	62
4th class, druggists	4
“ grocers	301
“ wholesale dealers, A	80
“ “ “ B	19
“ “ “ C	41
“ distillers	3
5th class, dealers	382
“ wholesale dealers	7
“ brewers, A	6
“ “ B	7
“ “ C	3
6th class, druggists	213
Total number of licenses issued during the year	2,614
Total number of licenses issued during the year to persons to sell liquor to be drunk on the premises	1,548

Of this number 14 have been forfeited.

Leaving the total number of places authorized to sell liquor to be drunk on the premises	1,534
Total number of licenses issued during the year to persons to sell liquor not to be drunk on the premises	1,066

Of this number 7 have been forfeited.

Leaving the total number of places authorized to sell liquor not to be drunk on the premises	1,059
Total number of liquor licenses forfeited	21
Number of places holding two licenses	84
Number of licenses not in use, the licensees having abandoned the business	17
Number of licenses transferred during the year from one place to another	104

Total number of licenses in force May 1, 1883 .	2,593
Total number of licenses issued during the year 1882	2,614
Number of complaints against unlicensed places,	2
Number of complaints for violation of the conditions of their licenses	93
Number of hearings called on complaints against licensees	93
Number of seizures made	147
Amount of liquor seized (galls.)	3,088
Arrests for selling without license	204
Amount of fines imposed	\$4,842 00
Amount paid into City Treasury for licenses and fees for the license year 1882-83	\$279,813 00
Expenses on account of enforcement of license law (including pay-roll of police officers specially detailed for the purpose and keeper of liquor storehouse)	\$27,537 67
Amount paid by the City of Boston to the State of Massachusetts, as by statute provided, for the year 1882-83	\$69,922 00

It will be seen by examination that while the income from licenses has increased over the previous year \$23,358.00, the expenses on account of the enforcement of the license law have been reduced \$3,824.12. Showing a net increase over the previous year, from licenses, of \$27,182.12.

The screen law has been thoroughly enforced during the past year, and the Board caused to be closed permanently all entrances to the licensed premises other than those from the public streets (when practical), and in consequence the arrests for drunkenness on Sunday have been reduced 34 $\frac{1}{2}$ per cent., and the sale to minors has almost entirely ceased.

And in this the department has been materially aided by the cordial coöperation and good-will of the Executive Committee of the Massachusetts Wine and Spirit Dealers' Association, the Brewers' Association, and other bodies of citizens organized for the better enforcement of the laws and the preservation of morality and public order.

There are several changes which could be made in the "Liquor Laws," so called, which would simplify matters and render them more effective. The utterly useless routine of compelling the Mayor to sign all the licenses issued by the Board, and which it is believed was the result of an oversight in those who drew up the law and ordinance establishing the Police Commission of Boston, should be abolished, as heretofore recommended, and the licenses should be signed by those granting them.

The only change made in the liquor law during the past year is that recommended in our last report, authorizing the Board to grant licenses for the year beginning May 1st in the months of March and April previous. The law went into operation on the third day of April, and prior to the first of May, this Board had examined and advertised applications, and had granted 1,173 licenses for the ensuing year; and every firm engaged in the wholesale business who had made their application for licenses, had it granted, so that no time intervened between the license which was in force for the year 1882-83, and that granted for 1883-84.

One of the principal difficulties with which the Board has to contend is in the mode in which licenses are granted.

The Board renews the recommendation of last year, that the license to sell intoxicating liquors should not depend either upon an innholder or a common victualler license, but should be independent of each, and only combined when the exigency demands such combination.

Each license should be issued on its merits. The laws regulating the sale of liquor, and the hours in which the traffic could be carried on, might then be absolutely controlled, but when combined as above, it is extremely difficult.

STATION-HOUSES.

The several station-houses are in good condition, with the exception of that on Division No. 1, which is poorly ventilated and ill constructed to meet the wants of a station where such a large number of prisoners are to be confined. The Board would recommend the abandonment and sale of this house and the erection of a new building, with modern conveniences, off the main thoroughfare, and believes a sum could be realized from the sale sufficient to meet the expense thereof.

The Board renews its recommendation of 1882, and for the reasons therein set forth, for the necessity of a new police station on the Back Bay.

A glance at the map, we think, will convince the Honorable City Council that the portions of Divisions 3, 4, 5, and 10, lying in that section, cannot be efficiently patrolled, owing to their distance from the station-houses. An officer making an arrest in that section is obliged to travel, in some instances, three miles before he can lodge his prisoner, and during his absence his route is wholly uncovered. The public park lands, on the Back Bay, would be included in this division, and this, coupled with the fact that the population in that portion of the city is rapidly increasing, and

that the citizens domiciled there are constantly requesting better protection for life and property, would seem to us to warrant a prompt and favorable consideration at your hands.

We respectfully call your attention to the telephone and signal telegraph system now in use in several cities; and, so far as we are able to judge from personal observation, together with reports from the cities which have adopted it, we are of the opinion, if introduced, it will be one of the most powerful aids to the department that has yet been devised.

AMBULANCES.

The need of some suitable means of properly conveying injured persons to the hospital, or other places where they could receive care and attention, and the fact that the ambulance attached to the City Hospital was so frequently in use when this department was called upon to render aid, led the Board to procure, for the use of the department, two ambulances, which have been built and furnished under the supervision of the City Physician, the first one going into use on the 14th day of April, 1882. They are located so as to be as near as possible to the central divisions, where most frequently required, and that they were needed can be readily seen from the fact that they were used in 509 cases from April 30th, 1882, to April 30th, 1883, inclusive.

Licenses for amusements were on January 30, 1883, by ordinance transferred to the Board of Aldermen.

In conclusion, the Board desires to express its satisfaction as to the condition of the force, and are of the opinion that it will compare favorably with the police department of any city in the country. During the past year the officers and men have cheerfully performed their duty, and, in our opinion, the department is entitled to the respect and confidence of the public.

THOMAS L. JENKS,
NATHANIEL WALES,
MICHAEL P. CURRAN.

Police Commissioners.

CITY OF



BOSTON.

METROPOLITAN RAILROAD.

EIGHTY-EIGHTH LOCATION.

IN BOARD OF ALDERMEN, July 2, 1883.

The Committee on Railroads, to whom was recommitted the petition of the Metropolitan Railroad Company for a location in Roxbury street, respectfully recommend the passage of the following order.

For the Committee,

CHAS. V. WHITTEN,

Chairman.

Ordered, That, in addition to the rights heretofore granted to the Metropolitan Railroad Company to lay down tracks in several of the streets of the city of Boston, said company shall have the right to lay down a track in Roxbury street, to connect by suitable curves and connections with the tracks already laid in said street, and extending to the line of Dunlow street; said tracks, curves and connections being shown by red lines on a plan made by Arthur Hodges, civil engineer, dated June 14, 1883, and deposited in the office of the Superintendent of Streets.

The right to lay down the track located by this order is upon condition that the whole work of laying down the same, the form of rail to be used, and the kind and quality of material used in paving said track shall be under the direction and to the satisfaction of the Committee on Paving, and the Superintendent of Streets, and shall be approved by them.

Also, upon condition that said Metropolitan Railroad Company shall accept this order of location, and agree, in writing, to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days from the date of the passage of this order; otherwise it shall be null and void.

Passed.

FREDERICK E. GOODRICH,

City Clerk.

CITY OF



BOSTON.

MONTHLY STATEMENT

OF THE

TREASURY DEPARTMENT.

TREASURER'S OFFICE,

BOSTON, July 3, 1883.

TO THE HONORABLE CITY COUNCIL:—

GENTLEMEN, — The undersigned herewith presents a statement of the receipts and payments of the Treasury Department of the City of Boston for the month of June, 1883, showing the balance of money remaining in the Treasury at the close of the month of June, 1883, and where deposited.

Respectfully submitted,

ALFRED T. TURNER, *City Treasurer.*

Monthly Statement of the Treasury Department.

Balance, May 31, 1883 \$3,268,239 91

RECEIPTS IN JUNE, 1883.

From City Collector, on City Account	\$327,271 54	
From City Collector, on County Account	36 00	
		327,307 54
From Sinking-Fund Commissioners, —		
For payment of Debt		142,000 00
City 4% Loan, —		
Library Lot, Dartmouth Street and St. James Avenue		50,000 00
Interest on Bank Deposits		6,846 79
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid		1,829 70
		\$3,796,223 94

PAYMENTS IN JUNE, 1883.

On Mayor's general draft	\$522,418 20
“ “ special drafts	897,611 62
	\$1,420,029 82
Sinking-Fund Commissioners, Revenue, payable under authority of Ordinance on Finance	72,309 77
Liquor Licenses paid State of Massachusetts, County of Suffolk, allowed by Auditor of the County of Suffolk	45,548 50
	25,856 14
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters	1,774 89
Refunded Betterments, Costs, etc.	178 68
Refunded Taxes, expenses, costs, etc.	125 33
Old Claims, Mayor's drafts, 1882-3, etc.	105 25
	\$1,565,928 38

RECAPITULATION.

Balance, May 31, 1883	\$3,268,239 91
Receipts during June, 1883	527,984 03
	\$3,796,223 94
Payments during June, 1883	1,565,928 38
Balance, June 30, 1883	<u>\$2,230,295 56</u>

STATEMENT

For the Financial Year 1883-84, from May 1, 1883, to June 30, 1883.

Balance on hand May 1, 1883	\$2,564,013 55
-------------------------------------	----------------

RECEIPTS.

From City Collector, on City Account	\$795,602 89	
From City Collector, on County Account	5,026 28	
		800,629 17

City 4% Loans,—

Charles River Embankment	\$200,000 00	
City Point Park	100,000 00	
Improved Sewerage	500,000 00	
Library Lot Dartmouth St. and St. James Ave. . . .	50,000 00	
Muddy River Improvement	100,000 00	
West Roxbury Park	300,000 00	
Widening Kneeland Street	1,000 00	
		1,251,000 00

From Sinking-Fund Commissioners, for payment of Debt	154,000 00
Premium on City Loans	61,740 00
Interest on Bank Deposits	13,885 66
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid	2,981 30
	<u>\$4,848,249 68</u>

PAYMENTS.

On Mayor's general draft	\$1,046,998 49
“ “ special drafts	1,356,701 16
	\$2,403,699 65
To Sinking-Fund Commissioners, revenue payable under authority of Ordinance on Finance	72,309 77
County of Suffolk, allowed by Auditor of the County of Suffolk	48,574 16
Amount carried forward,	<u>\$2,524,583 58</u>

<i>Amount brought forward,</i>	\$2,524,583 58
Liquor licenses, paid State of Massachusetts,	45,548 50
City 5% Loan	41,000 00
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters . . .	3,175 97
Refunded taxes, expenses, costs, etc. . . .	2,536 23
Refunded betterments and costs	178 68
Old claims, Mayor's drafts, of 1882-83, etc.	931 16
	<u>\$2,617,954 12</u>

RECAPITULATION.

Balance, May 1, 1883	\$2,564,013 55
Receipts from May 1 to June 30, 1883 . .	2,284,236 13
	\$4,848,249 68
Payments to June 30, 1883	2,617,954 12
Balance, June 30, 1883	<u>\$2,230,295 56</u>

Balance, June 30, 1883, as per preceding and monthly statement, as follows : —

Money deposited in the following banks : —

Merchants' National Bank	791,905 48
National Bank of Redemption	399,495 45
Howard National Bank	387,839 15
Globe National Bank	399,541 11
National Bank of Commerce, Pay-roll tailings account	3,920 83
Maverick National Bank	50,766 06
	\$2,033,468 08
Cash and cash vouchers in office	196,827 48
Total as above	<u>\$2,230,295 56</u>

ALFRED T. TURNER,
City Treasurer.

CITY OF



BOSTON.

AUDITOR'S MONTHLY EXHIBIT.

GENERAL AND SPECIAL APPROPRIATIONS

FOR 1883-84.

OFFICE OF THE CITY AUDITOR, }
CITY HALL, July 6, 1883. }

TO THE HONORABLE CITY COUNCIL:—

GENTLEMEN, — The undersigned, in compliance with Chap. 14, Section 3, Revised Ordinances, herewith presents an exhibit of the General and Special Appropriations for the present financial year of 1883-84, as shown in the books in his office, July 1, 1883, including the July draft, — being three months' payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1882-83, the amount drawn July 1, the total expenditures, and the balance of each appropriation unexpended at that date.

Respectfully submitted,

JAMES H. DODGE,
City Auditor.

APPROPRIATIONS.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	July Draft, including Treasurer's payments in June.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including July Draft.
Advertising	.	.	\$1,200 00	\$1,200 00	\$175 25	\$550 03	\$649 97	
Architect's Department	.	.	13,000 00	13,000 00	1,581 46	4,231 21	8,768 79	
Armories	.	.	24,000 00	24,000 00	5,122 63	6,428 69	17,571 31	
Assessors' Department	.	.	105,000 00	105,000 00	24,968 76	35,550 85	69,449 15	
Auditor's Department	.	.	17,500 00	17,500 00	1,378 66	4,070 28	13,429 72	
Board of Health, etc., viz.:								
Board of Health	.	.	62,000 00	62,000 00	5,919 33	14,187 12	47,812 88	
Evergreen Cemetery	\$39 52	\$129 25	1,500 00	1,668 77	228 00	756 00	912 77	
Public Baths	.	.	15,000 00	15,000 00	1,592 69	3,499 88	11,500 12	
Quarantine Department	.	.	16,400 00	16,400 00	1,877 40	7,670 99	8,729 01	
Boston Harbor	.	.	4,500 00	4,500 00	159 25	466 81	4,033 19	
Bridges:—								
Bridges	.	.	67,000 00	67,000 00	6,464 72	16,482 96	50,517 04	
New Bridge to Cambridge	1,000 00	.	.	1,000 00	.	.	1,000 00	\$425 95
Warren Bridge	99,710 55	.	.	99,710 55	136 50	136 50	99,574 05	
Burnt District	82,348 53	.	.	82,348 53	.	.	82,348 53	6,363,828 12
Cedar Grove Cemetery	504 52	2,035 25	5,000 00	7,539 77	1,714 64	3,899 85	3,639 92	
Chestnut Hill Driveway	.	.	3,000 00	3,000 00	227 00	639 44	2,360 56	
City Debt	.	.	768,278 00	768,278 00	.	.	768,278 00	
City Loans, Redemption of.	.	.	.	.	.	.	.	
Received from Commissioners	.	154,000 00	.	154,000 00	.	154,000 00	.	
Revenue \$84,000 00	.	.	.	.	.	.	.	
Sinking Funds \$70,000 00	.	.	.	.	.	.	.	
Redemption of City Debt	.	.	.	.	.	.	.	
Proper	.	.	.	.	142,000 00	.	.	
Redemption of Mystic Water Debt	.	.	.	.	.	.	.	
Cost of Redemption of matured bonds	.	.	.	.	.	.	.	
City Hospital	.	.	154,500 00	154,500 00	11,546 58	37,101 63	117,398 37	
Carried forward	\$183,603 12	\$156,164 50	\$1,257,878 00	\$1,597,645 62	\$205,092 87	\$289,672 24	\$1,307,973 38	\$6,364,254 07

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	July Draft, including Treasurer's payments in June.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including July Draft.
<i>Brought forward</i>								\$6,364,254 07
City Registrar's Department	\$183,603 12	\$156,164 50	\$1,257,878 00	\$1,597,645 62	\$205,092 87	\$289,672 24	\$1,307,973 38	
Collector's Department			10,900 00	10,900 00	671 44	2,017 80	8,882 20	
Common and Public Grounds:			52,900 00	52,900 00	3,895 87	11,467 56	41,432 44	
Common, etc.			63,550 00	63,550 00	11,189 35	27,439 08	36,110 92	
Current expenses								
Concrete walks								
Plank walks								
Flagstaffs, Common, Public Gar- den, and Washington Park								
Play Grounds								
Curb-stones, Copley Square ¹			5,000 00	5,000 00			5,000 00	
Improvement of Copley Square			5,000 00	5,000 00			5,000 00	
Public Garden Pond	9,541 35			9,541 35	369 00	2,128 75	7,412 60	
Contingent Funds, viz.:								
Joint Committees			15,000 00	15,000 00	2,168 25	5,395 60	9,604 40	
Mayor			1,500 00	1,500 00	13 70	90 60	1,409 40	
Board of Aldermen			6,600 00	6,600 00	651 85	1,650 30	4,949 70	
Common Council			5,000 00	5,000 00	1,624 95	2,179 15	2,820 85	
County of Suffolk			360,000 00	360,000 00	40,154 78	88,753 44	271,246 56	
Damages by dogs					5 00	18 50	(\$18.50 provided for.)	
Deeds, Real Estate Advertising, etc.	5,485 33	1,007 57		6,492 90	227 39	2,152 00	4,340 90	
East Boston Ferries:								
East Boston Ferries			210,540 00	210,540 00	19,253 87	57,097 24	153,442 76	
Head-house, North Ferry, Boston side	4,548 88			4,548 88		4,528 19	20 69	
New Ferry Boat			50,000 00	50,000 00			50,000 00	23,479 31
Engineer's Department			32,000 00	32,000 00	2,460 96	7,322 99	24,677 01	
Fire Department:								
Fire Department			601,043 00	601,043 00	44,385 77	217,699 64	383,343 36	
Fire-Alarm Telegraph			30,052 00	30,052 00	2,623 08	6,599 20	23,452 80	
Health Department			380,000 00	380,000 00	34,209 27	82,952 15	297,047 85	
<i>Carried forward</i>	\$203,178 68	\$157,172 07	\$3,086,963 00	\$3,447,313 75	\$368,997 40	\$809,164 43	\$2,638,167 82	\$6,387,733 38

¹ Transferred from Reserved Fund, \$5,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	July Draft, including Treasurer's payments in June.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including July Draft.
<i>Brought forward.</i>								
Improved Sewerage	\$203,178 68	\$157,172 07	\$3,086,963 00	\$3,447,313 75	\$368,997 40	\$809,164 43	\$2,638,167 82	\$6,387,733 38
Incidental Expenses	191,013 41	500,000 00	60,000 00	691,013 41	87,919 37	241,587 06	449,426 35	3,797,573 65
Inspection of Buildings	.....	397 41	.....	60,397 41	12,620 11	23,576 87	36,820 54	
Interest	.....	.....	33,500 00	33,500 00	2,863 86	7,751 97	25,748 03	
Lamp Department	.....	.....	1,562,968 00	1,562,968 00	105,084 58	112,111 58	1,450,856 42	
Law Department	.....	.....	500,000 00	500,000 00	32,843 55	95,539 91	404,460 09	
Liquor License Expenses:	.....	.....	23,000 00	23,000 00	1,859 75	5,599 43	17,400 57	
Police Commissioners	.....	.....	.....	.....	2,470 48	.....	.....	
City Clerk's Department	.....	.....	.....	.....	.....	.....	.....	
Collector's Department	.....	266,066 00	.....	266,066 00	73 55	52,705 54	213,360 46	
Treasurer's Department	.....	.....	.....	.....	.....	.....	.....	
Paid State, proportion of receipts, 45,548 50	.....	.....	.....	.....	.....	.....	.....	
Markets	.....	.....	.....	.....	45,548 50	2,388 36	8,831 64	
Mount Hope Cemetery	.....	.....	11,220 00	11,220 00	752 03	9,188 99	13,682 21	
Northampton-street District	4,559 54	3,568 66	14,743 00	22,871 20	5,439 56	.....	19,621 75	558,378 25
Old Claims	19,621 75	.....	.....	19,621 75	.....	.....	1,068 84	
Overseers of the Poor	.....	.....	2,000 00	2,000 00	105 25	931 16	99,198 40	
Park Department:	.....	.....	113,750 00	113,750 00	8,030 65	14,551 60	.....	
Park Department	1,514 74	.....	5,000 00	6,514 74	328 91	903 88	5,610 86	
Office Expenses	.....	.....	.....	.....	.....	.....	.....	
Muddy River Survey, etc.	.....	.....	.....	.....	.....	.....	.....	
Arnold Arboretum:	.....	.....	.....	.....	.....	.....	.....	
Land	30,598 15	.....	.....	30,598 15	.....	.....	30,598 15	29,401 85
Driveways, etc.	.....	.....	15,000 00	15,000 00	428 91	434 07	14,565 93	
Charles River Embankment:	.....	.....	.....	.....	.....	.....	.....	
Land	38,000 00	200,000 00	.....	238,000 00	19,550 00	19,550 00	218,450 00	81,550 00
Borings, etc. ²	.....	.....	1,000 00	1,000 00	2 40	2 40	997 60	
City Point Park:	.....	.....	.....	.....	.....	.....	.....	
Land	39,364 70	100,000 00	.....	139,364 70	.....	.....	139,364 70	80,635 30
Filling, etc. ³	.....	.....	3,000 00	3,000 00	.....	.....	3,000 00	
Covered Channel, Muddy River	24,287 88	.....	50,000 00	74,287 88	5,974 09	8,990 15	65,297 73	64,702 27
<i>Carried forward.</i>	\$552,138 85	\$1,227,204 14	\$5,482,144 00	\$7,261,486 99	\$700,892 95	\$1,404,977 40	\$5,856,528 09	\$10,999,974 70

¹ Total Appropriations, \$5,253,000; transferred August, 1876, by authority of an order of July 17, from Reserved Fund, \$40,000, and loans authorized, \$5,213,000; loans negotiated, \$4,207,000.

² Transferred from Reserved Fund, \$1,000.

³ Transferred from Reserved Fund, \$3,000.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers	Total Credits.	July Draft, including Treasurer's payments in June.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including July Draft.
<i>Brought forward</i>								
Covered Channel, Stony Brook	\$552,138 85	\$1,227,204 14	\$5,482,144 00	\$7,261,486 99	\$700,892 95	\$1,404,977 40	\$5,856,528 09	\$10,999,974 70
East Boston Park, care, etc.	3,192 50			3,192 50	736 46	1,911 33	1,281 17	125,096 18
Muddy River Improvement			5,000 00	5,000 00		49 33	4,950 67	
Park Nursery, Austin Farm	4,864 67	100,000 00		104,864 67	4,027 07	4,027 07	100,837 60	24,162 40
Public Park, Back Bay:	367 22		1,000 00	1,367 22	20 81	93 41	1,273 81	
Land	21,925 21			21,925 21			21,925 21	444,074 79
Filling, etc.	121,765 48		100,000 00	221,765 48	20,198 83	48,863 06	172,902 42	714,797 58
West Roxbury Park								
Land	64,066 97	300,000 00		364,066 97		20,816 97	343,250 00	256,750 00
Care, etc.			5,000 00	5,000 00	193 88	683 48	4,316 52	
Paving Department			800,000 00	800,000 00	95,825 58	169,233 93	630,746 07	
Phillips Street Fund, Income	4,358 16			4,358 16			4,358 16	
Police Department			970,324 00	970,324 00	77,169 61	229,050 37	741,273 63	
Printing and Stationery (general)	7,250 00		37,500 00	44,750 00	1,831 19	5,328 15	39,421 85	
Public Buildings:								
Public Buildings	23,340 99	1,548 61	136,650 00	161,539 60	21,672 23	47,230 09	114,309 51	
Engine-house, Bunker Hill Street			25,000 00	25,000 00			25,000 00	
Health Department Stables	2,613 97			2,613 97	1,435 74	1,972 33	641 64	
Library Lot, Dartmouth st. and St. James av., ¹ Public Institutions, viz.:		50,000 00		50,000 00	36,000 00	36,000 00	14,000 00	
House of Industry			176,200 00	176,200 60	21,243 58	40,251 85	135,948 15	
House of Correction			90,400 00	90,400 00	14,171 92	34,362 46	56,037 54	
Lunatic Hospital			60,000 00	60,000 00	4,569 25	14,157 11	45,842 89	
Marcella-street Home			45,000 00	45,000 00	2,953 39	10,385 40	34,614 60	
Alms-house, Austin Farm			27,000 00	27,000 00	1,826 23	5,609 87	21,390 13	
Alms-house, Charlestown District			10,950 00	10,950 00	1,427 18	2,690 85	8,259 15	
Pauper Expenses			159,000 00	159,000 00	1,556 15	31,486 52	127,513 48	
Steamboat "J. Putnam Bradlee"			14,000 00	14,000 00	5,828 71	7,547 99	6,452 01	
New boilers, etc., steamboat "J. Putnam Bradlee"			7,600 00	7,600 00	4,599 49	7,599 49	51	
Office Expenses			8,500 00	8,500 00	521 53	1,774 54	6,725 46	
Stone-cutting, Deer and Rainsford Islands			16,000 00	16,000 00	295 67	1,615 78	14,384 22	
Marcella-street Home, fences and grounds	1,004 92			1,004 92	192 75	445 00	559 92	
Furnishing Master's house, House of Cor- rection			2,000 00	2,000 00	1,999 60	1,999 60	40	
<i>Carried forward</i>	\$806,888 94	\$1,678,752 75	\$8,179,268 00	\$10,664,909 69	\$1,021,239 85	\$2,130,183 38	\$8,534,744 81	\$12,564,855 65

¹ Loan authorized, \$180,000; loan negotiated, \$50,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	July Draft, including Treasurer's payments in June.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including July Draft.
<i>Brought forward</i>								\$12,564,855 65
Public Lands	\$806,888 94	\$1,678,752 75	\$8,179,268 00	\$10,664,909 69	\$1,021,239 85	\$2,130,183 38	\$8,534,744 81	
Public Library			6,000 00	6,000 00	258 47	994 46	5,005 54	
Record Commissioners	2,093 95		120,000 00	122,093 95	9,935 07	29,559 27	92,534 68	
Record of Street Names	1,500 00		4,500 00	4,500 00	378 55	993 15	3,506 85	
Registration of Voters and Election Expenses:				1,500 00			1,500 00	
Registration of Voters			25,000 00	25,000 00	2,757 94	5,197 50	19,802 50	
Election Expenses			15,000 00	15,000 00		19 20	14,980 80	
Reserved Fund ¹			177,415 00	177,415 00			177,415 00	
Salaries			37,500 00	37,500 00	3,099 72	9,423 39	28,076 61	
Schools and School-houses, viz.:								
School Instructors			1,143,471 00	1,143,471 00	185,480 02	371,372 85	772,098 15	
Salaries Officers, School Committee			58,940 00	58,940 00	9,803 34	19,606 66	39,333 34	
School Expenses, School Committee			255,650 00	255,650 00	12,865 00	42,082 35	213,567 65	
Gibson School Fund, Income	2,084 95	35 00		2,119 95	42 28	451 21	1,668 74	
School-houses, Public Buildings			169,000 00	169,000 00	5,505 46	22,743 34	146,256 66	
Addition to Auburn-street School-house			5,000 00	5,000 00			5,000 00	
Addition to Chapman School-house	13,591 10			13,591 10	1,130 00	3,838 00	9,753 10	
Addition to School-house lot, Summer-street, Dorchester ²			7,500 00	7,500 00	7,279 50	7,279 50	220 50	
Chapman School-house, furnishing			2,000 00	2,000 00			2,000 00	
Addition to East Boston High School-house	30,000 00		5,000 00	35,000 00	6 50	81 08	34,918 92	
East Boston High School-house, furnishing			2,000 00	2,000 00			2,000 00	
Enlargement of Lexington-street School-house lot			2,300 00	2,300 00	2,300 00	2,300 00		
English High and Latin School Buildings ³	1,547 43			1,547 43			1,547 43	467,830 82
George Putnam School, completion of			15,000 00	15,000 00	78 24	78 24	14,921 76	
Grammar School-house, Hammond-park st.:								
Site								
Building			78,000 00	78,000 00	27,001 50	27,001 50	50,998 50	
<i>Carried forward</i>	\$857,706 37	\$1,678,787 75	\$10,308,544 00	\$12,845,038 12	\$1,289,161 44	\$2,673,205 08	\$10,171,851 54	\$13,032,686 47

¹ Transferred to Addition to East Boston High School-house, \$5,000.² Addition to School-house lot, Summer street, Dorchester, \$1,500.³ Charles River Embankment, Borings, etc., \$1,000.

City Point Park, Filling, etc., \$3,000.

Curbstones, Copley Square, \$5,000.

Primary School-house, Main street, Charlestown, \$1,085.

² Transferred from Reserved Fund, \$7,500.³ Total appropriation, \$469,378.25; loan authorized and negotiated, \$350,000; transfer, \$16,378.25; appropriations, \$103,000.

AUDITOR'S MONTHLY EXHIBIT.

7

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	July Draft, including Treasurer's payments in June.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including July Draft.
<i>Brought forward</i>								\$13,032,686 47
Grammar School-house, Kenilworth street	\$857,706 37	\$1,678,787 75	\$10,308,544 00	\$12,845,038 12	\$1,289,161 44	\$2,673,205 08	\$10,171,851 54	79,432 40
Grammar School-house, Kenilworth street, Furnishing	34,546 47		7,500 00	42,046 47	13,312 00	16,166 37	25,880 10	
Primary School-house, Harbor View street			6,200 00	6,200 00			6,200 00	
Primary School-house, Howard-avenue	12,000 00			12,000 00			12,000 00	
Primary School-house, Howard-avenue	31,317 07			31,317 07	6,608 00	11,804 00	19,513 07	33,535 93
Primary School-house, Howard-avenue, Furnishing			3,500 00	3,500 00			3,500 00	
Primary School-house, Main street, Charles- town:—								
Site ¹								
Building			42,085 00	42,085 00			42,085 00	
Primary School-house, O street	40,000 00		10,000 00	50,000 00	95 99	95 99	49,904 01	6,095 99
Primary School-house, Parker street			30,000 00	30,000 00			30,000 00	
Primary School-house, vicinity of Blossom street:—								
Site			100,000 00	100,000 00			100,000 00	
Building								
School-house, Breed's Island:—								
Site	7,960 70			7,960 70	1,392 90	1,392 90	6,567 80	2,432 20
Building								
Sealer of Weights and Measures			9,140 00	9,140 00	711 99	2,206 38	6,933 62	
Sewer Department			250,000 00	250,000 00	24,248 04	54,688 53	195,311 47	
Sinking-Fund Commissioners			2,000 00	2,000 00	391 89	507 89	1,492 11	
Soldiers' Relief	77,948 77			77,948 77	7,506 35	22,965 41	54,983 36	
Stony Brook Improvement	433 41		40,000 00	40,433 41	9,041 66	15,677 88	24,755 53	270,146 91
Suffolk Street District	659 71			659 71			659 71	2,427,589 25
Surveyor's Department			30,000 00	30,000 00	2,549 67	7,412 25	22,587 75	
Temporary Loan			97,000 00	97,000 00			97,000 00	
Treasurer's Department			29,500 00	29,500 00	2,419 45	7,270 15	22,229 85	
Water Works:—								
Cochituate Water Works		116,432 68		116,432 68				
Running expenses					25,585 71			
Interest					591 50		49,582 78	
<i>Carried forward</i>	\$1,062,572 50	\$1,795,220 43	\$10,965,469 00	\$13,823,261 93	\$1,383,616 59	\$2,880,242 73	\$10,943,037 70	\$15,851,919 15

¹ Transferred from Reserved Fund, \$1,085.

CITY OF



BOSTON.

FIRST SEMI-ANNUAL REPORT

OF THE

INSPECTORS OF PRISONS AND
HOUSES OF DETENTION

IN

SUFFOLK COUNTY,

JULY, 1883.

IN BOARD OF ALDERMEN, July 16, 1883.

The Special Committee of the Board of Aldermen appointed to visit the Jail and other houses of detention within the County of Suffolk, and to make the examination and inspection required by law, respectfully submit their first semi-annual report.

JAIL.

The visit to this institution was made June 29. The number of inmates on that date was: males, one hundred and forty-four; females, twenty-five; total, one hundred and sixty-nine.

The buildings were thoroughly examined and found to be extremely neat and clean. The food which was being distributed to the prisoners was inspected and found plentiful in quantity, wholesome, and palatable.

Many of the prisoners were examined apart from the keeper concerning their treatment and food, and but one or two complaints were heard, and those of a very trivial character.

In the matter of accommodations for the sick, the committee are of the opinion that some better provision should

be made, more especially for those suffering from lung or rheumatic diseases.

They believe that the limited space of a cell built of masonry is hardly the proper place for the confinement of such cases, and would recommend that some place be provided affording a plentiful and free circulation of air, and so situated as to receive the full benefit of the light of the sun.

LUNATIC HOSPITAL.

On the date of the committee's visit to this institution, June 29, the number of inmates was: ninety-three males, ninety-nine females; total, one hundred and ninety-two.

From the examination made, the committee believe that, so far as it can be done, everything is made as pleasant and agreeable as possible to alleviate the condition of the unfortunate persons who are confined here. The new wings authorized by the City Council of last year have been completed, and add greatly to the conveniences in managing the institution.

HOUSE OF CORRECTION.

This institution was also visited June 29, at which date the number of inmates was: males, four hundred and thirteen; females, seventy-five; total, four hundred and eighty-eight.

All the departments were visited and found in admirable condition for the comfort and security of the inmates.

The able-bodied were all engaged in some suitable employment. The food was examined and found to be of good quality. The discipline, while very strict, is none too much so for the proper conduct of the institution.

The hospital accommodations were excellent.

MARCELLA-STREET HOME.

This institution for pauper and neglected children of both sexes was inspected July 1, at which time the Home contained three hundred and sixty-two inmates. The comfort and welfare of these children appeared to be attended to in the best manner possible. Very few were found in the hospital, and such cases were not of a serious or contagious nature. The committee find the dormitories very much crowded, and would recommend an extension of the buildings. By so doing, additional sleeping accommodations would be provided, and better provision for the recreation of the children secure from the inclemency of the weather.

At the same time better accommodations might be provided for the laundry, which is now located in a very cramped and inconvenient locality.

The committee cannot let the opportunity pass without bearing testimony to the faithful and intelligent manner in which the duties of Superintendent of the Home have been performed by Mr. Hollis M. Blackstone, who is about to leave to assume the superintendency of one of the State institutions.

HOUSES OF INDUSTRY AND REFORMATION, AND TRUANT SCHOOL.

These institutions were inspected by the committee July 3, on which date the number of the inmates was : —

In House of Industry	887
House of Reformation	92
Truant School	147
Total	1,126

The truant children appeared to be making good progress in acquiring a fair education, and were well provided for in the buildings made vacant by the removal of the pauper and neglected children to the Marcella-street Home.

The boys and girls in the House of Reformation were either engaged in some suitable labor, or were kept in school, where, with apparently no compulsion, they seemed to be eagerly endeavoring to obtain an education which would enable them to adopt some means of properly obtaining a livelihood upon their release and make them useful citizens.

The inmates of the House of Industry were engaged in suitable labor, and were well treated and provided for.

All the buildings at Deer Island were found to be in good repair, and the cells for the confinement of the prisoners were in a very neat condition.

The prisoners made no complaints in relation to food or treatment.

FRANCIS W. PRAY,
PAUL H. KENDRICKEN,
CHARLES V. WHITTEN,

Committee of Inspectors.

APPENDIX.

SUFFOLK COUNTY JAIL,

BOSTON, June 29, 1883.

To the Inspectors of Prisons in the County of Suffolk: —

GENTLEMEN, — On the date of your inspection, Dec. 8, 1882, the total number of prisoners in this jail was . . . 127

Total number committed from that date to
June 29, 1883 1,649
————— 1,776

Total number discharged from Dec. 8, 1882, to
June 29, 1883 1,607
—————

Remaining in custody June 29, 1883 169

Males, 144 ; females, 25.

Within the period herein named 47 persons have been committed for debt ; 3 prisoners have died, each of whom when committed was very sick and ought not to have been sent to jail.

Henry Parsons, committed December 16, 1882, was sick with typhoid fever, was delirious, and so ill that he had to be carried from the prison van to his room in Jail, where he died, December 20, 1882.

Nellie Wells was, when committed, January 4, 1883, in the last stages of consumption, and also had delirium tremens, and died January 17, 1883. She had been a great many times a prisoner in Jail and in the House of Industry, and for several years past was an invalid.

William McDonald alias James Brennan, committed April 3, 1883, died of epilepsy, April 26, 1883, of which disease he had for a long time been afflicted.

Except the above named, the health of the prisoners has been good.

There are the usual cases of chronic and acute complaints, occasioned by vicious habits of life, for treatment ; in nearly every such case the prisoner having better care, and being in a better condition for relief than when at liberty.

The duties attendant upon the medical care and treatment of the prisoners in Jail have been faithfully performed by Dr. J. H. McCollom, the City Physician, who has made over 1,700 professional visits to the Jail during the past year.

Very respectfully,

JOHN M. CLARK, Sheriff,
Keeper of the Jail in Suffolk County.

BOSTON LUNATIC HOSPITAL.

BOSTON, July 10, 1883.

Return of the Boston Lunatic Hospital to the Inspectors of Prisons and Houses of Detention, for the term ending June 29, 1883.

Number of patients remaining Dec. 7, 1882, the date of the last inspection, —

Men	90
Women	97
	— 187

Number admitted since, —

Men	28
Women	31
	— 59

Whole number treated, —

Men	118
Women	128
	— 246

Number discharged, —

Men	25
Women	29
	— 54

Number remaining at present inspection, June 29, 1883, —

Men	93
Women	99
	— 192

Of those discharged there were, —

Recovered	15
Improved	5
Unimproved	6
Transferred	12
Died	16
	— 54

The twelve cases transferred were emergency cases not treated here.

Causes of death: —

Senile Dementia, 3; Consumption, 2; Melancholia, 2; General Paralysis, 2; Epilepsy, 2; Cancer, Oedema of Lungs, Mania, Puerperal Mania, and Paralytic Dementia, each 1. Total, 54.

The alterations and improvements recently in progress have been completed, at least as far as the wards of the hospital are concerned. Painting and furnishing four of the halls will put the hospital in a very comfortable and presentable condition. Our patients have been in daily use of the new dining-rooms for about four months, to the great satisfaction of all concerned.

Very respectfully,

THEO. W. FISHER,

Superintendent.

HOUSE OF CORRECTION.

BOSTON, MASS., July 5, 1883.

To the Inspectors of Prisons and Houses of Detention in the County of Suffolk: —

GENTLEMEN, — The committee visited the House of Correction June 29, 1883.

The number of prisoners remaining Dec. 7, 1882, was, —

Males, 419 ; females, 65 ; total	484
Committed from Dec. 7, 1882, to June 29, 1883, — Males, 420 ; females, 84 ; total	504
Discharged from Dec. 7, 1882, to June 29, 1883, — Males, 426 ; females, 74 ; total	500
Remaining June 29, 1883, — Males, 413 ; females, 75 ; total	488

MISCELLANEOUS.

Discharged on expiration of sentence	396
Discharged by order Municipal Court	66
Paid fines and costs	23
Released on probation	4
Pardoned by Governor	3
Transferred to Lunatic Hospital at Taunton	3
Furnished surety	3
Died	2
	500

General good health has prevailed in the Institution during the past six months. Two deaths occurred during May, the first death that has taken place since April, 1882. No contagious or epidemic diseases, I am pleased to say, have visited the Institution.

Strict attention to the rules and regulations is still required of the inmates, and general good order has prevailed throughout the prison.

The manufacture of clothing is still carried on. Prisoners who are able to work, and not required about the prison-yard or garden, are steadily occupied in the manufacture of the above.

The average number of prisoners is about the same as usual.

Very respectfully,

M. V. B. BERRY,

Master H. of C.

MARCELLA-STREET HOME.

BOSTON HIGHLANDS, July 3, 1883.

To Committee on Inspection of Prisons, etc.: —

The following is a report of the committals and discharges of the neglected children at the Marcella-street Home from Dec. 7, 1882, to June 30, 1883, inclusive, —

	Boys.	Girls.	Total.
Number remaining Dec. 7, 1882	134	56	190
Number committed from Dec. 7, 1882, to June 30, 1883	34	30	64
Number discharged from Dec. 7, 1882, to June 30, 1883	52	28	80
Number remaining June 30, 1883	116	58	174

Terms of committal, —

Minority	56
14 years	1
11 "	1
10 "	1
9 "	1
7 "	2
6 "	2
	—
	64

Discharges, and causes of same, —

By order of Board	78
Died	1
Expired sentence	1
	—
	80

	Boys.	Girls.	Total.
Pauper children	134	54	188
Neglected children	116	58	174
	—	—	—
Whole number	250	112	362

Respectfully submitted,

H. M. BLACKSTONE,

Superintendent.

HOUSE OF INDUSTRY.

To the Inspectors of Prisons for Suffolk County: —

GENTLEMEN, — Following is a report of commitments to and discharges from the House of Industry, House of Reformation, and Truant School, from Dec. 8, 1882, to July 3, 1883, inclusive: —

Commitments for —

Drunkenness	4,686
Larceny	238
Assault and battery	180
Common drunkard	67
Vagabond	64
Common night-walker	48
Idle and disorderly	40
Breaking glass	29
Disturbing the peace	26
Fornication	17
Profanity	10
Remaining on sidewalk	9
Malicious injury to real estate	8
Unlawful appropriation of a horse	8
Embezzlement	5
Receiving stolen goods	5
Assault	5
Fast driving	3
Carrying dangerous weapon	2
Cruelty to animals	2
Evading payment of car-fare	2
Loitering in railroad station	2
Malicious mischief	2
Throwing missiles in street	2
Threats	2
Disturbing an assembly	2
Obtaining property by false pretences	1
Stealing a ride	1
Attempt to rescue a prisoner	1
False pretences	1
Lewd, wanton and lascivious	1
Fraudulently obtaining board at a hotel	1
Keeping shop open on Lord's day	1
Rescuing a prisoner	1
Boarding a vessel	1
Keeping house of ill-fame	1
Neglecting to support his child	1
	5,475

Causes for Discharge.

Expired sentence	4,822
Fines paid	472
Pardoned	41
Bailed	8
Died	3
	5,346

Summary.

Remaining Dec. 7, 1882	.	.	.	.	.	.	758
Committed since	.	.	.	.	.	.	5,475
							6,233
Discharged since	.	.	.	.	.	.	5,346
Remaining July 3, 1883	.	.	.	.	.	.	<u>887</u>

HOUSE OF REFORMATION.

Commitments for —

	Boys.	Girls.	Total
Breaking and entering	8	0	8
Larceny	4	2	6
Stubborn child	6	0	6
Truant	0	1	1
Vagabond	1	0	1
Assault and battery	1	0	1
Unlawful appropriation	1	0	1
	21	3	24

Causes for Discharge.

Expired sentence	.	.	.	.	.	1	1	2
Pardoned	.	.	.	.	.	43	3	46
						44	4	48

Summary.

Remaining Dec. 7, 1882	.	.	.	.	102	14	116
Committed since	.	.	.	.	21	3	24
					123	17	140
Discharged since					44	4	48
Remaining July 3, 1883	.	.	.	.	79	13	92

TRUANT SCHOOL.

Commitments for —

Truancy	38
Absenteeism	9
	47

Causes for Discharge.

Expired sentence	50
Pardoned	48
	98

Summary.

Remaining Dec. 7, 1882	198
Committed since	47
	245
Discharged since	98
Remaining July 3, 1883	147

Respectfully submitted,

JOHN C. WHITON,

Superintendent.

DEER ISLAND, BOSTON HARBOR, July 3, 1883.

CITY OF



BOSTON.

MONTHLY STATEMENT

OF THE

TREASURY DEPARTMENT.

TREASURER'S OFFICE,
BOSTON, Aug. 2, 1883.

TO THE HONORABLE CITY COUNCIL : —

GENTLEMEN, — The undersigned herewith presents a statement of the receipts and payments of the Treasury Department of the City of Boston for the month of July, 1883, showing the balance of money remaining in the Treasury at the close of the month of July, 1883, and where deposited.

Respectfully submitted,

ALFRED T. TURNER, *City Treasurer.*

Monthly Statement of the Treasury Department.

Balance, June 30, 1883 \$2,230,295 56

RECEIPTS IN JULY, 1883.

From City Collector, on City Account	\$474,676 02	
From City Collector, on County Account . .	17,672 25	
		492,348 27
Temporary Loan, 1883-4		500,000 00
City 4% Loan, —		
Library Lot, Dartmouth Street and St. James Avenue		50,000 00
Cochituate Water 4% Loan, —		
Introduction of Meters and Inspection . .		50,000 00
From Sinking-Fund Commissioners, —		
For payment of Debt		18,000 00
Interest on Bank Deposits		4,720 11
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid . .		1,667 11
Tax Title, —		
Estate 249 Webster street		115 30
		<u>\$3,347,146 35</u>

PAYMENTS IN JULY, 1883.

On Mayor's general draft	\$463,049 23
“ “ special drafts	839,834 69
	<u>\$1,302,883 92</u>
County of Suffolk, allowed by Auditor of the County of Suffolk	40,048 28
Liquor Licenses paid State of Massachusetts, Sinking-Fund Commissioners, Revenue, payable under authority of Ordinance on Finance	20,051 50
	18,207 50
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters . .	1,263 44
Refunded Taxes, expenses, costs, etc. .	913 26
	<u>\$1,383,367 90</u>

RECAPITULATION.

Balance, June 30, 1883	\$2,230,295 56
Receipts during July, 1883	1,116,850 79
Payments during July, 1883	1,383,367 90
Balance, July 31, 1883	
	\$1,963,778 45

STATEMENT

For the Financial Year 1883-84, from May 1, 1883, to July 31, 1883, inclusive:—

Balance on hand May 1, 1883	\$2,564,013 55
-------------------------------------	----------------

RECEIPTS.

From City Collector, on City Account	\$1,270,278 91
From City Collector, on County Account	22,698 53
	1,292,977 44

City 4% Loans,—	
Charles River Embankment	\$200,000 00
City Point Park	100,000 00
Improved Sewerage	500,000 00
Library Lot, Dartmouth St. and St. James Ave. . . .	100,000 00
Muddy River Improvement	100,000 00
West Roxbury Park	300,000 00
Widening Kneeland Street, ...	1,000 00
	1,301,000 00

Cochituate Water 4% Loan,—	
Introduction of Meters and Inspection	50,000 00
Temporary Loan, 1883-4	500,000 00
From Sinking-Fund Commissioners, for payment of Debt	172,000 00
Premium on City Loans	61,740 00
Interest on Bank Deposits	18,605 77
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid	4,648 41
Tax Title, 249 Webster street	115 30
	\$5,965,100 47

PAYMENTS.

On Mayor's general draft	\$1,510,047 72
“ “ special drafts	2,196,535 85
Amount carried forward,	\$3,706,583 57

<i>Amount brought forward,</i>	\$3,706,583 57
To Sinking-Fund Commissioners, revenue payable under authority of Ordinance on Finance	90,517 27
County of Suffolk, allowed by Auditor of the County of Suffolk	88,622 44
Liquor licenses, paid State of Massachusetts,	65,600 00
City 5% Loan	41,000 00
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters	4,439 41
Refunded taxes, expenses, costs, etc.	3,449 49
Old claims, Mayor's drafts, of 1882-83, etc.,	931 16
Refunded betterments and costs	178 68
	<u>\$4,001,322 02</u>

RECAPITULATION.

Balance, May 1, 1883	\$2,564,013 55
Receipts from May 1 to July 31, 1883, inclusive	3,401,086 92
	\$5,965,100 47
Payments to July 31, 1883, inclusive	4,001,322 02
Balance, July 31, 1883	<u>\$1,963,778 45</u>

Balance, July 31, 1883, as per preceding and monthly statement, as follows:—

Money deposited in the following banks:—

Merchants' National Bank	\$915,215 89
National Bank of Redemption	278,584 93
Howard National Bank	287,477 76
Globe National Bank	290,433 32
National Bank of Commerce, Pay-roll tailings account	4,324 50
	\$1,776,036 40
Cash and cash vouchers in office	187,742 05
Total as above	<u>\$1,963,778 45</u>

ALFRED T. TURNER,
City Treasurer.

CITY OF



BOSTON.

AUDITOR'S MONTHLY EXHIBIT.

GENERAL AND SPECIAL APPROPRIATIONS

FOR 1883-84.

OFFICE OF THE CITY AUDITOR, }
CITY HALL, August 2, 1883. }

TO THE HONORABLE CITY COUNCIL:—

GENTLEMEN, — The undersigned, in compliance with Chap. 14, Section 3, Revised Ordinances, herewith presents an exhibit of the General and Special Appropriations for the present financial year of 1883-84, as shown in the books in his office, August 1, 1883, including the August draft,— being four months' payments of the financial year,— exhibiting the original appropriations, the balances brought forward from the year 1882-83, the amount drawn August 1, the total expenditures, and the balance of each appropriation unexpended at that date.

Respectfully submitted,

JAMES H. DODGE,
City Auditor.

APPROPRIATIONS.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	August Draft, including Treasurer's payments in July.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including August Draft.
Advertising	.	.	\$1,200 00	\$1,200 00	\$297 55	\$847 58	\$352 42	
Architect's Department	.	.	13,000 00	13,000 00	1,251 03	5,482 24	7,517 76	
Armories	.	.	24,000 00	24,000 00	1,447 95	7,876 64	16,123 36	
Assessors' Department	.	.	105,000 00	105,000 00	20,728 92	56,279 77	48,720 23	
Auditor's Department	.	.	17,500 00	17,500 00	1,344 91	5,415 19	12,084 81	
Board of Health, etc., viz.:	.	.	62,000 00	62,000 00	4,921 69	19,108 81	42,891 19	
Board of Health	.	.	1,500 00	1,678 77	230 87	986 87	691 90	
Evergreen Cemetery	\$39 52	\$139 25	15,000 00	15,000 00	2,108 10	5,607 98	9,392 02	
Public Baths	.	.	16,400 00	16,400 00	4,344 47	12,015 46	4,384 54	
Quarantine Department	.	.	4,500 00	4,500 00	165 00	631 81	3,868 19	
Boston Harbor	.	.	67,000 00	67,000 00	5,698 35	22,181 31	44,818 69	
Bridges: —	.	.	.	.	.	.	.	
New Bridge to Cambridge	1,000 00	.	.	1,000 00	.	.	1,000 00	\$1,111 12
Warren Bridge	99,710 55	.	.	99,710 55	685 17	821 67	98,888 88	6,363,828 12
Burnt District	82,348 53	.	.	82,348 53	.	.	82,348 53	
Cedar Grove Cemetery	504 52	3,267 85	5,000 00	8,772 37	1,561 55	5,461 40	3,310 97	
Chestnut Hill Driveway	.	.	3,000 00	3,000 00	266 20	905 64	2,094 36	
City Debt	.	.	768,278 00	768,278 00	.	.	768,278 00	
City Loans, Redemption of, Received from Commissioners	.	172,000 00	.	172,000 00	.	172,000 00	.	
Revenue \$102,000 00	.	.	.	.	.	.	.	
Sinking Funds \$70,000 00	.	.	.	.	.	.	.	
Redemption of City Debt Proper	.	.	.	.	18,000 00	.	.	
Redemption of Mystic Water Debt	.	.	.	.	.	.	.	
Cost of Redemption of matured bonds	.	.	.	.	.	.	.	
City Hospital	.	.	154,500 00	154,500 00	12,074 29	49,175 92	105,324 08	
Carried forward	\$183,603 12	\$175,407 10	\$1,257,878 00	\$1,616,888 22	\$75,126 05	\$364,798 29	\$1,252,089 93	\$6,364,939 24

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	August Draft, including Treasurer's payments in July.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including August Draft.
<i>Brought forward</i>	\$183,603 12	\$175,407 10	\$1,257,878 00	\$1,616,888 22	\$75,126 05	\$364,798 29	\$1,252,089 93	\$6,364,939 24
City Registrar's Department			10,900 00	10,900 00	684 70	2,702 50	8,197 50	
Collector's Department			52,900 00	52,900 00	3,909 85	15,377 41	37,522 59	
Common and Public Grounds:								
Common, etc.			63,550 00	63,550 00	9,276 92	36,716 00	26,834 00	
Current expenses								
Concrete walks								
Plank walks								
Flagstaffs, Common, Public Gar- den, and Washington Park . \$352 75								
Play Grounds								
Curb-stones, Copley Square ¹			5,000 00	5,000 00			5,000 00	
Improvement of Copley Square			5,000 00	5,000 00	2,779 28	2,779 28	2,220 72	
Public Garden Pond	9,541 35			9,541 35		2,128 75	7,412 60	
Contingent Funds, viz.:								
Joint Committees			15,000 00	15,000 00	1,896 05	7,291 65	7,708 35	
Mayor			1,500 00	1,500 00	162 00	252 60	1,247 40	
Board of Aldermen			6,600 00	6,600 00	461 50	2,111 80	4,488 20	
Common Council			5,000 00	5,000 00	291 60	2,470 75	2,529 25	
County of Suffolk			360,000 00	360,000 00	24,733 65	113,457 09	246,512 91	
Damages by dogs					10 00	28 50	(\$28.50 provided for.)	
Deeds, Real Estate Advertising, etc.	5,485 33	2,395 90		7,881 23	745 01	2,897 01	4,984 22	
East Boston Ferries:								
East Boston Ferries			210,540 00	210,540 00	22,111 79	79,209 03	131,330 97	
Head-house, North Ferry, Boston side	4,548 88			4,548 88		4,528 19	20 69	
New Ferry Boat			50,000 00	50,000 00	619 52	619 52	49,380 48	
Engineer's Department			32,000 00	32,000 00	2,568 71	9,891 70	22,108 30	
Fire Department:								
Fire Department			601,043 00	601,043 00	49,512 11	267,211 75	333,831 25	
Fire-Alarm Telegraph			30,052 00	30,052 00	2,588 79	9,187 99	20,864 01	
Health Department			380,000 00	380,000 00	30,809 14	113,761 29	266,238 71	
<i>Carried forward</i>	\$203,178 68	\$177,803 00	\$3,088,963 00	\$3,467,944 68	\$228,286 67	\$1,037,451 10	\$2,430,522 08	\$6,388,418 55

¹ Transferred from Reserved Fund, \$5,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	August Draft, including Treasurer's payments in July.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including August Draft.
<i>Brought forward.</i>								\$6,388,418 55
Improved Sewerage ¹	\$203,178 68	\$177,803 00	\$3,086,963 00	\$3,467,944 68	\$228,286 67	\$1,037,451 10	\$2,430,522 08	3,925,846 43
Incidental Expenses	191,013 41	500,000 00		691,013 41	128,272 83	369,859 89	321,153 52	
Inspection of Buildings		397 41		60,397 41	13,483 94	37,060 81	23,336 60	
Interest			33,500 00	33,500 00	3,226 53	10,978 50	22,521 50	
Lamp Department			1,562,968 00	1,562,968 00	240,697 09	352,808 67	1,210,159 33	
Law Department			500,000 00	500,000 00	34,831 96	130,371 87	369,628 13	
Liquor License Expenses:			23,000 00	23,000 00	1,887 50	7,486 93	15,513 07	
Police Commissioners					2,032 05			
City Clerk's Department								
Collector's Department		282,260 00		282,260 00	68 00	74,857 09	207,402 91	
Treasurer's Department								
Paid State, proportion of receipts, 65,600 00					20,051 50			
Markets			11,220 00	11,220 00	783 28	3,171 64	8,048 36	
Mount Hope Cemetery	4,559 54	5,677 87	14,743 00	24,980 41	4,168 71	13,357 70	11,622 71	
Northampton-street District	19,621 75			19,621 75			19,621 75	558,378 25
Old Claims			2,000 00	2,000 00		931 16	1,068 84	
Overseers of the Poor			113,750 00	113,750 00	5,931 13	20,482 73	93,267 27	
Park Department:								
Park Department	1,514 74		5,000 00	6,514 74	309 25	1,213 13	5,301 61	
Office Expenses								
Muddy River Survey, etc.								
Arnold Arboretum:								
Land	30,598 15			30,598 15			30,598 15	29,401 85
Driveways, etc.			15,000 00	15,000 00	997 67	1,431 74	13,568 26	
Charles River Embankment:								
Land	38,000 00	200,000 00		238,000 00	17,000 00	36,550 00	201,450 00	98,550 00
Borings, etc. ²			1,000 00	1,000 00	146 50		851 10	
City Point Park:								
Land	39,364 70	100,000 00		139,364 70	25,023 29	25,023 29	114,341 41	105,658 59
Filling, etc. ³			3,000 00	3,000 00			3,000 00	
Covered Channel, Muddy River	24,287 88		50,000 00	74,287 88	7,788 03	16,778 18	57,509 70	72,490 30
<i>Carried forward.</i>	\$552,138 85	\$1,266,138 28	\$5,482,144 00	\$7,300,421 13	\$734,985 93	\$2,139,963 33	\$5,160,486 30	\$11,178,744 02

¹ Total Appropriations, \$5,253,000; transferred August, 1876, by authority of an order of July 17, from Reserved Fund, \$40,000, and loans authorized, \$5,213,000; loans negotiated, \$4,207,000.

² Transferred from Reserved Fund, \$1,000.

³ Transferred from Reserved Fund, \$3,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers	Total Credits.	Aug. Draft, including Treasurer's payments in July.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including August Draft.
<i>Brought forward</i>	\$552,138 85	\$1,266,138 28	\$5,482,144 00	\$7,300,421 13	\$734,985 93	\$2,139,963 33	\$5,160,486 30	\$11,178,744 02
Covered Channel, Stony Brook	3,192 50			3,192 50	103 33	2,014 66	1,177 84	125,199 51
East Boston Park, care, etc.			5,000 00	5,000 00		49 33	4,950 67	
Muddy River Improvement	4,864 67	100,000 00		104,864 67	5,085 00	9,112 07	95,752 60	29,247 40
Park Nursery, Austin Farm	367 22		1,000 00	1,367 22		93 41	1,273 81	
Public Park, Back Bay:								
Land	21,925 21			21,925 21			21,925 21	444,074 79
Filling, etc.	121,765 48		100,000 00	221,765 48	14,785 70	63,648 76	158,116 72	729,583 28
West Roxbury Park		300,000 00		364,066 97		20,816 97	343,250 00	
Land								
Care, etc.			5,000 00	5,000 00	613 08	1,296 56	3,703 44	
Paving Department			800,000 00	800,000 00	125,255 54	294,509 47	505,490 53	
Phillips Street Fund, Income	4,358 16			4,358 16			4,358 16	
Police Department				970,324 00	76,922 35	305,972 72	664,351 28	
Printing and Stationery (general)	7,250 00		37,500 00	44,750 00	4,596 50	9,924 65	34,825 35	
Public Buildings:								
Public Buildings	23,340 99	5,048 64	136,650 00	165,039 63	17,058 61	64,288 70	100,750 93	
Engine-house, Bunker Hill Street			25,000 00	25,000 00	103 68	103 68	24,896 32	
Health Department Stables	2,613 97			2,613 97	427 00	2,399 33	214 64	
Library Lot, Dartmouth st. and St. James av., ¹		100,000 00		100,000 00	13,650 00	49,650 00	50,350 00	
Public Institutions, viz.:								
House of Industry			176,200 00	176,200 00	11,395 12	51,646 97	124,553 03	
House of Correction			90,400 00	90,400 00	11,364 42	45,726 88	44,673 12	
Lunatic Hospital			60,000 00	60,000 00	8,631 36	22,788 47	37,211 53	
Marcella-street Home			45,000 00	45,000 00	3,052 79	13,438 19	31,561 81	
Almshouse, Austin Farm			27,000 00	27,000 00	2,368 45	7,978 32	19,021 68	
Almshouse, Charlestown District			10,950 00	10,950 00	1,144 03	3,834 88	7,115 12	
Pauper Expenses			159,000 00	159,000 00	32,311 52	63,798 04	95,201 96	
Steamboat "J. Putnam Bradlee" ¹			14,000 00	14,000 00	1,069 32	8,617 31	5,382 69	
New boilers, etc., steamboat "J. Putnam Bradlee"			7,600 00	7,600 00		7,599 49	51	
Office Expenses			8,500 00	8,500 00	935 24	2,709 78	5,790 22	
Stone-cutting, Deer and Rainsford Islands.			16,000 00	16,000 00	1,555 42	3,171 20	12,828 80	
Marcella-street Home, fences and grounds.				1,004 92		445 00	559 92	
Furnishing Master's house, House of Cor- rection	1,004 92							
			2,000 00	2,000 00		1,999 60	40	
<i>Carried forward</i>	\$806,888 94	\$1,771,186 92	\$8,179,268 00	\$10,757,343 86	\$1,067,414 39	\$3,197,597 77	\$7,559,774 59	\$12,763,599 00

¹ Loan authorized, \$180,000; loan negotiated, \$100,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Aug. Draft, including Treasurer's payments in July.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncon- pleted public buildings and works, May 1, 1883, including August Draft.
<i>Brought forward</i>	\$806,888 94	\$1,771,186 92	\$8,179,268 00	\$10,757,343 86	\$1,067,414 39	\$3,197,597 77	\$7,559,774 59	\$12,763,599 00
Public Lands	..	..	6,000 00	6,000 00	206 00	1,200 46	4,799 54	
Public Library	..	..	120,000 00	122,093 95	8,474 84	38,034 11	84,059 81	
Record Commissioners	..	..	4,500 00	4,500 00	360 35	1,353 50	3,146 50	
Record of Street Names	1,500 00	..	..	1,500 00	..	..	1,500 00	
Registration of Voters and Election Expenses:	..	..	..	..	..	..	..	
Election Expenses	..	..	25,000 00	25,000 00	1,403 60	6,601 10	18,398 90	
Reserved Fund ¹	..	..	15,000 00	15,000 00	252 13	271 33	14,728 67	
Salaries	..	..	177,415 00	177,415 00	..	..	177,415 00	
Schools and School-houses, viz.:	..	..	37,500 00	37,500 00	3,105 67	12,529 06	24,970 94	
School Instructors	..	..	1,143,471 00	1,143,471 00	..	371,372 85	772,098 15	
Salaries Officers, School Committee	..	..	58,940 00	58,940 00	..	19,606 66	39,333 34	
School Expenses, School Committee	..	..	255,650 00	255,650 00	41,776 55	83,858 90	171,791 10	
Gibson School Fund, Income	..	65 00	..	2,149 95	8 75	459 96	1,689 99	
School-houses, Public Buildings	2,084 95	..	169,000 00	169,000 00	3,361 25	26,104 59	142,895 41	
Addition to Auburn-street School-house	..	..	5,000 00	5,000 00	..	..	5,000 00	
Addition to Chapman School-house	13,591 10	..	..	13,591 10	2,955 00	6,793 00	6,798 10	
Chapman School-house, furnishing	..	..	..	..	..	..	..	
Addition to School-house lot, Summer-street, Dorchester ²	..	..	2,000 00	2,000 00	..	..	2,000 00	
Addition to East Boston High School-house	..	..	7,500 00	7,500 00	..	7,279 50	220 50	
East Boston High School-house, furnishing:	30,000 00	..	5,000 00	35,000 00	62 46	143 54	34,856 46	
Enlargement of Lexington-street School- house lot	..	..	2,000 00	2,000 00	..	..	2,000 00	
English High and Latin School Buildings ³	..	..	2,300 00	2,300 00	..	2,300 00	..	
George Putnam School, completion of	1,547 43	..	..	1,547 43	..	..	1,547 43	
Grammar School-house, Hammond-park st.:	..	..	15,000 00	15,000 00	36 10	114 34	14,885 66	
Site	..	..	..	..	..	..	..	467,830 82
Building	..	..	78,000 00	78,000 00	..	27,001 50	50,998 50	
<i>Carried forward</i>	\$857,706 37	\$1,771,251 92	\$10,308,544 00	\$12,937,502 29	\$1,129,417 09	\$3,802,622 17	\$9,134,908 62	\$13,231,429 82

¹ Transferred to Addition to East Boston High School-house, \$5,000.

 Addition to School-house lot, Summer street, Dorchester, \$7,500.
 Charles River Embankment, Borings, etc., \$1,000.

 City Point Park, Filling, etc., \$3,000.

 Curbstones, Copley Square, \$5,000.

 Primary School-house, Main street, Charlestown, \$1,085.

² Transferred from Reserved Fund, \$7,500.

³ Total appropriation, \$469,378.25; loan authorized and negotiated, \$350,000; transfer,
 \$16,378.25; appropriations, \$103,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Aug. Draft, including Treasurer's payments in July.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncom- pleted public buildings and works, May 1, 1883, including August Draft.
<i>Brought forward</i>								\$13,231,429 82
Grammar School-house, Kenilworth street . .	\$857,706 37	\$1,771,251 92	\$10,308,544 00	\$12,937,502 29	\$1,129,417 09	\$3,802,622 17	\$9,134,908 62	83,037 40
Grammar School-house, Kenilworth street, Furnishing	34,546 47		7,500 00	42,046 47	3,605 00	19,771 37	22,275 10	
Primary School-house, Harbor View street .			6,200 00	6,200 00			6,200 00	
Primary School-house, Howard-avenue . .	12,000 00			12,000 00	96 98	96 98	11,903 02	
Primary School-house, Howard-avenue . .	31,317 07			31,317 07	4,625 65	16,429 65	14,887 42	38,161 58
Primary School-house, Howard avenue, Furnishing			3,500 00	3,500 00			3,500 00	
Primary School-house, Main street, Charles- town:—								
Site			42,085 00	42,085 00			42,085 00	
Building			10,000 00	50,000 00	64 18	160 17	49,839 83	6,160 17
Primary School-house, O street	40,000 00			30,000 00			30,000 00	
Primary School-house, Parker street								
Primary School-house, vicinity of Blossom street:—								
Site			100,000 00	100,000 00			100,000 00	
Building								
School-house, Breed's Island:—								
Site	7,960 70			7,960 70	12 40	1,405 30	6,555 40	2,444 60
Building			9,140 00	9,140 00	933 26	3,139 64	6,000 36	
Sealer of Weights and Measures			250,000 00	250,000 00	33,221 20	87,909 73	162,090 27	
Sewer Department			2,000 00	2,000 00	58 00	565 89	1,434 11	
Sinking-Fund Commissioners								
Soldiers' Relief	77,948 77			77,948 77	7,426 66	30,392 07	47,556 70	282,803 30
Stony Brook Improvement	433 41		40,400 00	40,433 41	12,656 39	28,334 27	12,099 14	2,427,589 25
Suffolk Street District	659 71			659 71			659 71	
Surveyor's Department			30,000 00	30,000 00	2,532 36	9,944 61	20,055 39	
Temporary Loan			97,000 00	97,000 00			97,000 00	
Treasurer's Department			29,500 00	29,500 00			19,886 75	
Water Works:—								
Cochituate Water Works		206,399 59		206,399 59				
Running expenses					30,924 49	139,475 89	66,923 70	
Interest					41,701 50			
<i>Carried forward</i>	\$1,062,572 50	\$1,977,651 51	\$10,965,469 00	\$14,005,693 01	\$1,269,618 26	\$4,149,860 99	\$9,855,860 52	\$16,071,626 12

1 Transferred from Reserved Fund, \$1,085.

APPROPRIATIONS, CONCLUDED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Aug. Draft, including Treasurer's payments in July.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works May 1, 1883, including August Draft.
<i>Brought forward.</i>	\$1,032,572 50	\$1,977,651 51	\$10,965,469 00	\$14,005,693 01	\$1,269,618 26	\$4,149,860 99	\$9,855,860 52	\$16,071,626 12
Additional Supply of Water ¹	219,141 48			219,141 48	31,439 01	74,193 63	144,947 85	5,591,938 95
New Main, Cochituate Water Works	9,486 78			9,486 78	1,107 63	1,439 64	8,047 14	271,952 86
Introduction of Meters and Inspection		50,000 00		50,000 00	497 70	497 70	49,502 30	
Mystic Water Works		34,408 89		34,408 89				
Running expenses					5,732 17		(\$12,321.54 provided for.)	
Interest					11,970 00			
Proportions paid under con- tracts								
Mystic Sewer	7,256 02			7,256 02	5,606 20	5,756 20	1,499 82	123,500 18
West Boston and other Bridges			11,500 00	11,500 00	1,217 10	4,474 15	7,025 85	
Widening and Extending Streets:—								
Widening Streets			100,000 00	100,000 00	1,049 15	27,588 06	72,411 94	
Broadway Extension	41,284 56			41,284 56	19,524 19	25,097 57	16,186 99	
Columbus Avenue Extension	3,012 70			3,012 70			3,012 70	1,303,807 01
Commonwealth Avenue Extension	25,727 76			25,727 76			25,716 51	61,987 30
Commonwealth Avenue Extension, Brighton D Street Extension			55,000 00	55,000 00			55,000 00	199,283 49
Eastern Avenue and Bridge	8,800 73		10,000 00	18,800 73			18,800 73	46,199 27
Harrison Avenue Extension	13,569 79			13,569 79			13,569 79	186,430 21
Huntington Avenue Extension	3,604 17			3,604 17			3,604 17	126,515 83
Camden st. to Parker st. { Parker st. to Tremont st. }	49,099 42		40,000 00	89,099 42	16,352 53	24,186 39	64,913 03	54,354 98
Phillips Street Extension								75,731 99
Washington Street Extension	24,303 00		32,300 00	32,300 00			32,300 00	1,645,697 00
Widening Commercial Street	12,471 83			12,471 83			24,303 00	487,703 17
Widening Kneeland Street ²	6,515 66	1,000 00		7,515 66		175 00	12,296 83	120,484 34
Widening Portland Street	85,352 31			85,352 31	154 25	7,000 00	515 66	219,781 94
Widening South Street	20,174 92			20,174 92		5,134 25	80,218 06	119,825 08
Widening South Street, East Street to Kneec- land Street	21,757 69			21,757 69		55 00	21,702 69	163,297 31
	\$1,614,131 32	\$2,063,060 40	\$11,214,269 00	\$14,891,460 72	\$1,364,268 19	\$4,372,200 26	\$10,531,610 50	\$26,875,117 03
						Less prov. for,	12,350 04	
							\$10,519,260 46	

¹ Total appropriations, \$5,736,886.80; loans negotiated, premium on said loans, and transfer from Reserved Fund, \$5,736,886.80.
² Loan authorized, \$180,000; loan negotiated, \$121,000.

CITY OF



BOSTON.

REPORT

ON

EXAMINATION OF THE ACCOUNTS

OF THE

CITY AND COUNTY TREASURER

AND THE

CITY COLLECTOR.

IN BOARD OF ALDERMEN, Aug. 13, 1883.

The Joint Standing Committee on Treasury Department, to whom were referred the accounts of the City and County Treasurer and the City Collector for the year ending April 30, 1883, beg leave to report that they have caused a thorough examination of said accounts to be made by an expert, under the direction of a sub-committee, and herewith submit a report of said examination.

For the Committee,

CHAS. V. WHITTEN,

Chairman.

Accepted, and ordered printed.

FREDERICK E. GOODRICH,

City Clerk.

To the Joint Standing Committee on Boston Treasury Department:—

GENTLEMEN, — At the request of your sub-committee, Messrs. Leighton, Wise, and Boyle, I have made a careful audit of the Treasurer's accounts from the time of my last annual examination, and respectfully

R E P O R T :

That, on the morning of Monday, July 30, 1883, I counted the cash in the hands of the Treasurer's cashier, and, with the aid of Messrs. Wise and Boyle, verified the bank balances to the credit of the Treasurer, both for sinking fund and general city account, and found on hand the sum of \$2,839,327.00, to wit:—

For General city account	.	.	.	.	\$1,932,429	12
Sinking fund	.	.	.	.	\$906,897	88

For detail of the above, see Schedule A¹ herewith, representing balances on hand at close of business, Saturday, July 28, 1883.

I have since traced back all the entries in the cash-book from said date of July 28th, to May 1, 1883, inclusive (as per Schedule A³), and all the deposits into and checks drawn from the various banks having accounts with the Treasurer (as per Schedule A^{1, 2, and 3}), and thus find that at the close of business, April 30, 1883, there was on hand the sum of \$3,973,808.98, to wit:—

For General city account	.	.	.	.	\$2,564,013	55
Sinking fund	.	.	.	.	\$1,409,795	43

which amounts agree with the balances called for by the book-keeper's books of the respective accounts at the close of the financial year, April 30, 1883.

I have also verified every entry in the Treasurer's cash-books from May 1, 1882, to April 30, 1883, inclusive, tracing all receipts to proper authentications in the Collector's and Auditor's departments, and all outlays by Auditor's drafts and original vouchers, and find the statement presented by the Treasurer at the close of the financial year to be accurate and duly authenticated in all particulars.

A summary of these respective transactions is presented in Schedule "B" herewith.

At the same date of counting the Treasurer's cash, I also counted that of the different paymasters, and found them correct, as per Schedule "C" herewith. I verified the "Pay-

roll Tailings" account by the original pay-rolls, finding them to compare correctly, except for the deficiency existing at the time the present Treasurer assumed office. For detail, see Schedule "D."

I also examined the bonds in the custody of the Collector on account of sales of public lands and street improvements, finding them correct and in accord with the Collector's account. See Schedule "E."

The "Residue Tax" account, representing moneys left in custody of the Collector, and subject to the call of proper claimants, I was able to audit only in part, viz.: from March 12, 1883, the date of the change of Collectors. ¹Ex-Collector Sherwin took away the book of this account, Mr. Ricker informs me, and the latter could only produce his own accounts and vouchers from the date above mentioned. For details, see Schedule "E."

The Treasury deficit arising under Treasurer Dennie remains as at my last report, to wit:—

Deficit in Cashier's account	.	.	.	.	\$7,234 38
“ “ Sinking-Fund account	.	.	.	.	82,000 00
Total	.	.	.	.	\$89,234 38

Respectfully submitted,

R. STUART CHASE,
Auditor of Accounts.

Boston, Aug. 8, 1883.

¹ While this report was in process of printing, Mr. Sherwin sent his book to the Collector. I have since audited the same and find it correct.

R. S. C.

A¹.

Cash on hand at close of business, July 28, 1883, as counted on the morning of July 30 (Monday), 1883.

GENERAL CASH.

Deposited in Merchants' N. Bank, as per certificate of said Bank	\$979,790 38	
Less checks out, viz. : No. 123, Dec. 8, 1882, \$500 ; No. 727, July, 1883, \$2,698.67	3,198 67	
		\$976,591 71
Deposited in Mutual Redemption		307,276 27
" Howard		290,796 21
" Globe		300,816 99
" Commerce	\$4,450 80	
Less checks No. 43, \$7.50 ; No. 58, \$6.00 ; No. 29, \$74.80	88 30	
		4,362 50
Deposit, First Ward Bank, Cash in Cashier's hands, viz. : bills and coin	\$23,076 01	11,934 00
Interest vouchers	13,242 00	
Advances, E. A. Macdonald, ...	3,518 12	
Advances, sundry departments	815 31	
		40,651 44
Total		<u>\$1,932,429 12</u>

SINKING FUND CASH.

Deposit in Merchants' N. Bank per certificate	<u>\$906,897 88</u>
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VERIFICATION OF BANK BALANCES TO APRIL 30, 1883.

Merchants' N. Bank. General Account.

Balance, July 28	\$979,790 38	
July checks paid	909,584 23	
June "	934,617 51	
May "	549,803 12	
		\$3,373,795 24
<i>Amount carried forward,</i>		<u>\$3,373,795 24</u>

<i>Amount brought forward,</i>		\$3,373,795 24
Deposits, July	\$1,087,446 32	
June	858,771 77	
May	1,294,052 02	
		3,240,270 11
Balance, April 30, 1883		<u>\$133,525 13</u>

Merchants' N. Bank. Sinking Fund Account.

Balance, July 28	\$906,897 88	
Checks, July	118,000 00	
“ June	192,000 00	
“ May	13,000 00	
		\$1,229,897 88
Deposits, July	\$321,177 56	
“ June	146,990 18	
“ May	13,922 25	
		482,089 99
Balance, April 30, 1883		<u>\$747,807 89</u>

A².

GENERAL CASH.

Mutual Redemption.

Balance, July 28	\$307,276 27	
July checks	93,182 96	
June “	195,991 66	
May “	140,116 54	
		\$736,567 43
Deposits, July		
“ June	\$127,041 34	
“ May	411,179 28	
		538,220 62
Balance, April 30, 1883		<u>\$198,346 81</u>

Globe National Bank.

Balance, July 28	.	.	\$300,816	99	
July checks	.	.	99,691	88	
June "	.	.	214,938	00	
May "	.	.	138,283	01	
					\$753,729 88
Deposit, July	.	.			
" June	.	.	\$127,031	02	
" May	.	.	411,257	55	
					538,288 57
Balance, April 30, 1883	.	.	.	.	\$215,441 31

Howard National Bank.

Balance, July 28	.	.	\$290,796	21	
July checks	.	.	97,959	44	
June "	.	.	146,398	99	
May "	.	.	101,440	35	
					\$636,594 99
July deposit	.	.			
June "	.	.	\$113,315	87	
May "	.	.	291,361	46	
					404,677 33
Balance, April 30, 1883	.	.	.	.	\$231,917 66

National Bank of Commerce.

Balance, July 28	.	.	\$4,450	80	
Less old checks out, viz.:					
No. 43, \$7.50; No. 58,					
\$6.00; No. 29, \$74.80				88	30
			\$4,362	50	
July checks	.	.	1,225	44	
June "	.	.	1,774	89	
May "	.	.	1,401	08	
					\$8,763 91
Deposit, July	.	.	\$1,667	11	
" June	.	.	1,829	70	
" May	.	.	1,151	60	
					4,648 41
Balance, April 30, 1883	.	.	.	.	\$4,115 50

A³.

GENERAL CASH.

Balance, July 28, in 25 National Banks, besides Merchants', Redemption, Howard, Globe, and Commerce	\$000,000 00
July checks drawn on ditto	\$51,077 30
June " " "	736,666 06
May " " "	625,000 00
	1,412,743 36
July deposits in ditto	\$1,892 29
June " " "	2,056 46
May " " "	3,609 36
	7,558 11
Balance on deposit in said 25 Banks, April 30, 1883	\$1,405,185 25
Cashier's balance, July 28, 1883	\$52,585 44
payment entries from May 1, 1883, to July 28, 1883, inclusive	4,509,687 49
	\$4,562,272 93
Receipts	4,186,791 04
	\$375,481 89

SINKING FUND CASH.

Balance, July 28, in 11 Boston Banks	\$000,000 00
July checks on do	668,904 60
July dep's.	\$3,284 27
June "	1,840 37
May "	1,792 42
	6,917 06
Balance in 11 Banks beside Merchants', April 30, 1883	\$661,987 54

GENERAL CASH ACCOUNT.

Balances on hand April 30, 1883.

General :

Merchants' National Bank	\$133,525 13
Mutual Redemption	198,346 81
Howard	231,917 66
Globe	215,441 31
Commerce	4,115 50
25 National Banks	1,405,185 25
Cashier	375,481 89

Total, April 30, 1883	<u>\$2,564,013 55</u>
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SINKING FUND CASH ACCOUNT.

Sinking Fund :

Merchants' National Bank	\$747,807 89
11 National Banks	661,987 54

	<u>\$1,409,795 43</u>
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B.

CITY TREASURER.

General Cash Account.

Receipts.

1882.

Dr.

May 1. Balance on hand	\$2,065,309 07
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1883.

April 30. Collector, 12 mos.	14,258,506 87
Bank interest, 12 mos.	71,053 06
City Loans, 4 per cent., 12 mos.	2,549,000 00
Temporary Loans, 4 per cent., 12 mos.	97,000 00
Temporary Loans, 3½ per cent., 12 mos.	2,100,000 00
Sinking Fund Debt acct., 12 mos.	1,502,004 76
Sinking Fund Revenue, "	654 52
Premium on loans "	26,082 00
Pay-roll tailings "	28,252 57

	<u>\$22,697,862 85</u>
--	------------------------

Disbursements.

1883.	Cr.	
April 30.	General Drafts, 12 mos. . . .	\$9,947,539 46
	Special " "	7,695,693 40
	County " "	362,903 11
	Old Claims, City "	448 01
	" County, 12 mos. . . .	4 00
	Refunded Old Taxes and Exp. . . . \$12,331 13	
	Refunded 1882 Taxes and Exp. . . . 4,638 57	
	Refunded Sewers and Exp. . . . 58 65	
	Refunded Residue Tax Sales 122 43	
	Refunded Paving Tax Sales 470 88	
	Refunded Better- ments Tax Sales, ... 642 02	
	Refunded Bank Tax, ... 15 35	
	" Dog Tax, ... 360 50	
		18,639 53
	State, for Liquor Licenses	69,922 00
	" Bank Tax	686,060 97
	" Corporation Tax	8,893 35
	" 1882 Tax	825,480 00
	City Loans, 1879-82	13,000 00
	Trust Fund, Police Charity	11,000 00
	Cedar Grove Cem- etery	3,000 00
	Mt. Hope Cemetery, ...	2,500 00
	Gibson School	1,000 00
	Sinking Fund Revenue	460,597 98
	Pay-roll tailings	27,167 49
	Balance on hand	2,564,013 55
		\$22,697,862 85

1883.	
April 30.	Balance \$2,564,013 55

C.

PAYMASTER'S CASH.

July 30, 1883.

C. G. Gibson, —

Balance of unpaid pay-rolls		\$951 05
Bank bills on hand	\$948 00	
Specie	3 06	
	<u>\$951 06</u>	<u>\$951 05</u>

J. D. Carty, —

Balance of unpaid pay-rolls		\$346 13
Bills	\$346 00	
Change	13	
	<u>\$346 13</u>	<u>\$346 13</u>

W. T. Gibbons, —

Balance of unpaid pay-rolls		\$566 12
Deposited in Merchants' Bank, ...	\$310 00	
Bills	250 00	
Specie	6 12	
	<u>\$566 12</u>	<u>\$566 12</u>

E. A. Macdonald, —

Cashier's voucher receipt		\$3,518 12
Unpaid pay-roll tailings		159 04
Bills on hand	\$215 00	
Specie	122 25	
Check	10 00	
Sundry court vouchers	393 41	
Pay-rolls returned to Auditor	2,936 50	
	<u>\$3,677 16</u>	<u>\$3,677 16</u>

D.

PAY-ROLL TAILINGS ACCOUNT.

1882.

Apr. 30. Balance outstanding	
tailings	\$3,950 88

1883.

Apr. 30. Additions for twelve	
months from pay-	
masters	28,252 57

Amount carried forward, \$32,203 45

<i>Amount brought forward,</i>		\$32,203 45	
Apr. 30.	Payments for twelve months by Cashier		\$27,167 49
	Balance account this day		5,035 96
		<u>\$32,203 45</u>	<u>\$32,203 45</u>

1883.

Apr. 30.	To balance brought down	\$5,035 96	
July 28.	Receipts and payments to date from April 30	4,648 41	\$4,401 41
		<u>\$9,684 37</u>	

Amount of outstanding pay-rolls, viz. :—

Board of Health	\$38 34	
City Hospital	55 93	
Cedar Grove Cemetery . .	18 82	
Commons and squares . .	94 34	
Fire Department	597 78	
House of Correction . . .	6 00	
House of Industry	17 50	
Improved Sewerage	491 06	
Sewers	304 85	
Broadway extension . . .	5 50	
East Boston ferries . . .	2 10	
Janitors and instructors .	1,316 28	
Lamps	63 69	
Lunatic Hospital	7 79	
Mt. Hope Cemetery	30 13	
Mystic valley	29 38	
Paving	456 30	
Public Library	12 82	
Police	233 50	
Schools	743 87	
Water	453 46	
Election expenses	14 00	
Health Department	289 52	
		<u>5,282 96</u>
		<u>\$9,684 37</u>

1883.

July 28.	Balance	account	
	brought down		\$5,282 96
	Deficit in Dennie's ac-		
	count		\$1,066 60
	Amount of Treasurer		
	Tracy's balance,	146 14	
	Cash balance in Bank		
	of Commerce		4,362 50
		<u>\$5,429 10</u>	<u>\$5,429 10</u>

E.

COLLECTORS.

1882.

Apr. 30.	Balance Public Land	
	Bonds.	\$75,514 02
	Balance Street Im-	
	provements	186,907 05

1883.

Apr. 30.	Additions for 12	
	mos., Public Land	
	Bonds	5,907 50
	Additions Street	
	Improvements	10,125 00
		<u>\$278,453 57</u>

Payments 12 mos., on Public	
Land Bonds	\$14,248 25
Payments 12 mos., Street Im-	
provement Bonds	42,926 05
Abatements 12 mos., Public Land	
Bonds	18,533 27

1883.

Apr. 30.	Balance Public Land	
	Bonds this day	\$48,640 00
	Balance Street Im-	
	provement Bonds this	
	day	154,106 00
		<u>202,746 00</u>
		<u>\$278,453 57</u>

1883.

Apr. 30.	Balance as above	\$202,746 00	
Aug. 8.	Additions to date, Street Improve- ment Bonds .	22,924 56	
			\$225,670 56
	Payments to date, Street Improve- ment Bonds		\$2,608 00
	Payments to date, Public Land Bonds		25,277 00
Aug. 8.	Balance, as examined this day	\$23,363 00 174,422 56	
			197,785 56
			\$225,670 56

RESIDUE TAXES ACCOUNT.

1883.

Mar. 12.	Balance transferred by Collector Sherwin to Col- lector Ricker .	\$3,850 92	
June 30.	Bank Interest, 3 months	19 50	
			\$3,870 42
	Payments from March 12th to August 6th, inclusive		\$457 87
Aug. 8.	Cash in Merchants' N'l B'k, \$2,429 71 Less check, 8 13		
			\$2,421 58
	Bills	890 00	
	Cash on Cashier's receipt for spe- cie	100 00	
	Change	97	
			3,412 55
			\$3,870 42

CITY OF



BOSTON.

LIST OF
CITY OFFICERS AND EMPLOYEES.

OFFICE OF THE CLERK OF COMMITTEES,
CITY HALL, August 20, 1883.

To the Honorable the City Council:—

GENTLEMEN, — In compliance with the instructions contained in the orders passed May 8, 1883, and June 6, 1883, I submit herewith the following list of city officers, as required in said orders.

Very respectfully yours,

WILLIAM H. LEE,

Clerk of Committees.

EXECUTIVE DEPARTMENT.

Name.	Position.	Salary.
Albert Palmer	Mayor	\$5,000 00
Thomas D. Parker.....	Mayor's Clerk	1,800 00

CITY CLERK'S DEPARTMENT.

Name.	Position.	Salary.
Fred'k E. Goodrich ..	City Clerk.....	\$4,000 00
John T. Priest	Asst. City Clerk	2,500 00
John H. Colby	Chief Record Clerk	145 00 per mo.
Timothy W. Willard.	Chief Clerk, Mortgage Dept.	135 00 "
John B./Shea	Clerk	100 00 "
Miss Mary L. Furness	Copyist (City Records).....	70 00 "
Miss Laura F. Tilton	" (Mortgages)	67 00 "
Miss F. C. Leonard..	" "	65 00 "
Miss M. M. Williams	" "	65 00 "
Mrs. Anna J. Wood..	" "	65 00 "
Miss Nellie M. Cole .	" "	60 00 "
Miss Gertr'de O'Brien	" "	45 00 "

CLERK OF COMMON COUNCIL.

Name.	Position.	Salary.
Washington P. Gregg....	Clerk	\$2,000 00
Joseph O'Kane	Asst. Clerk.....	1,500 00

CLERK OF COMMITTEES.

Name.	Position.	Salary.
William H. Lee	Clerk	\$3,500 00
James L. Hillard	Asst. Clerk.....	1,800 00

CITY MESSENGER'S DEPARTMENT.

Name.	Position.	Salary.
Alvah H. Peters	City Messenger	\$2,250 00
Foster M. Spurr.....	First Asst. Messenger.....	1,000 00
Charles E. Silloway.....	Second Asst. Messenger	800 00
Harry H. Osborn	Third Asst. Messenger	600 00
Alexander B. Houghton ..	Chief Janitor	1,080 00
Atlas Skinner	First Asst. Janitor	600 00
William T. Dunn	Second Asst. Janitor	540 00
Hugh W. J. McLaughlin .	Third Asst. Janitor.....	540 00
Lemuel Wood.....	Fourth Asst. Janitor.....	540 00
Theodore Jennings	Porter	365 00

CITY AUDITOR'S DEPARTMENT.

Name.	Position.	Salary.
James H. Dodge	City Auditor.....	\$4,000 00
J. A. Mitchell	Chief Clerk.....	2,700 00
Chas. A. Rolland	Assistant Clerk	1,950 00
John A. Kidney	" "	1,800 00
Geo. W. Currier	" "	1,450 00
J. C. Haynes	" "	1,450 00
W. H. Hayward	" "	1,000 00
Edward Barry	" "	800 00
Wm. J. Barry.....	" "	500 00

TREASURER'S DEPARTMENT.

Name.	Position.	Salary.
Alfred T. Turner.....	Treasurer	\$6,000 00
Alfred T. Turner.....	Treasurer of Sinking-Fund Comm's...	700 00
Benj. S. Turner.....	Cashier	2,800 00
Chas. G. Reynolds.....	Book-keeper	2,400 00
William T. Gibbons	Paymaster.....	2,200 00
Charles G. Gibson	"	2,200 00
John D. Carty	"	2,200 00
Edmund A. Macdonald...	County Paymaster	2,400 00
{ Reuben Peterson, Jr. ..	Paymaster, State Aid	1,200 00
	Also as examiner for Committee on State Aid.....	1,200 00
Ellison B. Cushing	Teller	2,200 00
J. Edwin Hunt	County and Trustee Clerk	1,800 00
Charles J. Vaughn.....	Draft Clerk and Asst. Paymaster.....	1,800 00
{ George B. Ager	Bond and Interest Clerk	1,700 00
	Also as book-keeper for the B'd of Com's on the Sink. Funds	700 00
Thomas Fay, Jr.	Clerk and Messenger	1,500 00

COLLECTOR'S DEPARTMENT.

Name.	Position.	Salary.
James W. Ricker.....	Collector	\$5,000 00
Francis K. Stoddard	Cashier	2,900 00
Charles E. Tucker.....	Chief Clerk	2,400 00
George D. Underwood ...	Book-keeper.....	2,200 00
Edward B. Blasland	Tax Clerk.....	1,800 00
Christopher A. Connor ...	Department Clerk.....	1,000 00
Charles R. Brown	Clerk, general work.....	800 00
Frank F. Derby.....	" " "	400 00

Collector's Department.—Concluded.

Name.	Position.	Salary.
Wm. H. Badlam.....	Deputy Collector	\$1,700 00
Charles A. Barry	“ “	1,700 00
George W. Conant.....	“ “	1,700 00
Isaac W. Derby.....	“ “	1,700 00
John A. Devlin.....	“ “	1,700 00
Sylvester H. Hebard	“ “	1,700 00
Solomon Hovey, Jr.....	“ “	1,700 00
J. Stuart MacCorry.....	“ “	1,700 00
Wm. F. McIntosh	“ “	1,700 00
Leavitt B. Palmer	“ “	1,700 00
J. Edward Priest	“ “	1,700 00
Edwin B. Spinney.....	“ “	1,700 00
Denis A. Sullivan	“ “	1,700 00
Elbridge G. Wallis	“ “	1,700 00
R. N. Wiswall	“ “	1,700 00
Abraham G. Wyman	“ “	1,700 00

CITY ENGINEER'S DEPARTMENT.

Name.	Position.	Salary.
Henry M. Wightman.....	City Engineer	\$4,500 00
A. Fteley.....	Chief Assistant	3,300 00
E. C. Clarke	Prin. Asst. Improved Sewerage.....	3,000 00
Stephen H. Tarbell	Superintendent “	1,200 00
H. A. Carson.....	“ “	1,200 00
John F. McMahon.....	Purchasing Agent “	1,600,00

SURVEYOR'S DEPARTMENT.

Name.	Position.	Salary.
Thomas W. Davis.....	City Surveyor	\$3,300 00
S. Clarence Ellis	Assistant	2,100 00
Charles Morton	Charge of Grade Department.....	1,800 00
Charles C. Perkins.....	Surveyor	1,800 00
George F. Loring.....	Head Draughtsman and Clerk.....	1,600 00
Charles F. Baxter	Surveyor.....	1,600 00
F. M. Miner	"	1,320 00
J. F. Wadleigh.....	"	1,320 00

LAW DEPARTMENT.

Name.	Position.	Salary.
Edward P. Nettleton.	Corporation Counsel	\$6,000 00
Andrew J. Bailey....	City Solicitor.....	4,500 00
Thomas M. Babson..	Asst. City Solicitor.....	2,500 00
Eugene B. Hagar....	" "	2,500 00
Charles F. Day.....	City Conveyancer.....	2,500 00
Roscoe P. Owen.....	" "	2,500 00
Fisher Ames	Clerk	1,500 00
Thomas Fee	Messenger	20 00 per mo.

CEDAR GROVE CEMETERY.

Name.	Position.	Salary.
F. M. Safford	Superintendent	\$1,800 00
Joseph Whitfield	Foreman.....	780 00
W. F. P. Howland.....	Clerk	720 00

CITY HOSPITAL.

Name.	Position.	Salary.
George H. M. Rowe	{ Superintendent.....	\$2,200 00
	{ Admitting Physician	500 00

EAST BOSTON FERRY DEPARTMENT.

Name.	Position.	Salary.
H. P. Arbecam.....	Superintendent	\$2,500 00
Ebenezer Adams	Asst. Superintendent.....	1,000 00
W. H. Flanigan	Clerk	2,000 00
J. A. Raycroft.....	Acting Asst. Clerk	1,300 00
C. W. Doten.....	Chief Engineer	1,800 00
Carl Abraham.....	Messenger	660 00
C. H. Crocker.....	Captain	100 00 per mo.
George Bussey	"	100 00 "
John L. Ellis.....	"	100 00 "
John Gray	"	100 00 "
Charles Hall	"	100 00 "
F. P. Joy.....	"	100 00 "
G. W. Leonard.....	"	100 00 "
F. H. Leonard	"	100 00 "
John Tyrer	"	100 00 "
W. S. Alexander	Engineer	90 00 "
Nathaniel Allen	"	90 00 "
John Alexander	"	90 00 "
George Bertram.....	"	90 00 "
Henry Carney.....	"	90 00 "
F. A. Cone.....	"	90 00 "
L. D. Johnson.....	"	90 00 "
John Phelan	"	90 00 "

East Boston Ferry.—Continued.

Name.	Position.	Salary.
Benj. Williams, Jr...	Engineer	\$90 00 per mo.
B. F. Hartley	"	90 00 "
F. B. Clement	Tollman	90 00 "
J. H. Flood	"	90 00 "
C. H. Godbold.....	"	90 00 "
F. A. Griffin	"	90 00 "
F. Johnson.....	"	90 00 "
J. C. Pike, Jr.	"	90 00 "
J. A. Ritchie	"	90 00 "
N. S. Walker	"	90 00 "
William Thompson ..	"	90 00 "
C. A. Estey.....	Acting Tollman.....	90 00 "
William Brennan	Gateman	70 00 "
C. W. Burrows.....	"	70 00 "
Edward Gray.....	"	70 00 "
C. S. Colby	"	70 00 "
C. E. Pearson	"	70 00 "
John Riley.....	"	70 00 "
Dennis Long	"	70 00 "
J. S. Tompkins.....	"	70 00 "
C. A. Wentworth	"	70 00 "
F. A. Westman.....	"	70 00 "
C. W. Keen.....	Acting Gateman	70 00 "
J. L. Baker	"	70 00 "
J. R. Alexander	Fireman	67 50 "
D. H. Brown.....	"	67 50 "
J. A. Bradlee	"	67 50 "
C. A. Cash.....	"	67 50 "
Richard Furness.....	"	67 50 "

East Boston Ferry.—Continued.

Name.	Position.	Salary.
Andrew Gallagher ...	Fireman	\$67 50 per mo.
G. W. Holmes.....	"	67 50 "
B. F. Havlin	"	67 50 "
D. McLaughlin.....	"	67 50 "
F. A. Porter	"	67 50 "
A. Robb	"	67 50 "
John Shea	"	67 50 "
A. L. Whittier	"	67 50 "
G. J. McQueen.....	Lamplighter	65 00 "
William Kissock.....	"	65 00 "
F. A. Brooks.....	Deck Hand.....	65 00 "
C. J. Murphy	"	65 00 "
B. O'Dowd.....	"	65 00 "
G. A. Cook.....	"	65 00 "
Matthew Crimmen ...	"	65 00 "
J. H. Tyrer	"	65 00 "
O. K. Smith.....	"	65 00 "
S. H. Hartley	"	65 00 "
William Hartnett	"	65 00 "
D. J. Hyde.....	"	65 00 "
W. H. Harding.....	"	65 00 "
Joseph Joy.....	"	65 00 "
Harry King.....	"	65 00 "
Roger Sullivan	"	65 00 "
J. F. Labohn.....	"	65 00 "
James McHugh.....	"	65 00 "
Henry Slack	"	65 00 "
John Moore, Jr.	"	65 00 "
William Donahoe ...	Store Keeper	60 00 "

East Boston Ferry.—Concluded.

Name.	Position.	Salary.
John Cummings	Boat Cleaner	\$55 00 per mo.
Mrs. E. Cummings...	"	25 00 "
Mrs. E. Griffith.....	"	30 00 "
Cornelius Roach	"	55 00 "
Mrs. Dan'l McKenney	Janitress	{ 40 00 "
		{ 10 00 for asst's
W. R. Clark	Gateman and Watchman.....	\$65 00 per mo.
A. W. Drew	" "	65 00 "
Francis Johnson.....	" "	65 00 "
I. P. Whittier.....	" "	65 00 "
Richard Hosea	Watchman	55 00 "
Wm. Kellieher	"	55 00 "
Martin O'Flaherty ...	"	55 00 "
A. C. Stiles	"	55 00 "
W. H. Brown	Carpenter	70 00 "
H. F. Sampson.....	"	70 00 "

HARBOR MASTER.

Name.	Position.	Salary.
George F. Goold	Harbor Master.....	\$1,500 00
Franklin Winchester ...	Asst. "	300 00

STATE AID.

Name.	Position.	Salary.
¹ Reuben Peterson, Jr.....	Paymaster	\$1,200 00
Elizabeth Jones	Asst. "	800 00

¹This officer is included in list of employees in Treasury Department.

PUBLIC BUILDING DEPARTMENT.

Name.	Position.	Salary.
James C. Tucker	Superintendent	\$3,600 00
Horace B. Fisher	Book-keeper and Clerk of Committee .	2,000 00
Charles Jenkins	Assistant to Superintendent	2,000 00
Frederick C. Hanson	“ “ “	1,800 00
William Tucker	“ “ “	1,500 00
Saml. Hosea	Weigher and Inspector of Wood and Coal	1,350 00
Warren A. Cass	Clerk	800 00
C. S. Bolton	Superintendent of Faneuil Hall	500 00

MOUNT HOPE CEMETERY.

Name.	Position.	Salary.
John E. E. Goward	Superintendent	\$2,300 00
James H. Morton	Gardener	1,200 00

CITY ARCHITECT'S DEPARTMENT.

Name.	Position.	Salary.
Charles J. Bateman	City Architect	\$3,500 00
Geo. M. Harding	Foreman Asst.	1,650 00
Robt. B. Kelley	Draughtsman	1,000 00
Fredk. L. Perkins	“	1,000 00
Max Wiese	“	1,000 00
John Coles	“	1,000 00
John P. Hill	“	1,200 00
Wm. P. Willard	Clerk and Draughtsman	1,000 00

SEALERS OF WEIGHTS AND MEASURES.

Name.	Position.	Salary.
Michael D. Collins	Sealer	\$2,000 00
Daniel P. Sullivan	Deputy Sealer	1,200 00
Benj. Brintnall	" "	1,200 00
Edward Carl	" "	1,200 00
John J. Henry	" "	1,200 00

REGISTRARS OF VOTERS.

Name.	Position.	Salary .
Joseph M. Wightman	Registrar.....	\$2,500 00
Linus M. Pearson.....	"	2,500 00
Michael Carney	"	2,500 00
Charles F. Howard	Clerk	1,700 00

PRINTING AND STATIONERY.

Name.	Position.	Salary.
Thomas J. Lane	Superintendent	\$2,000 00

BRIDGES.

Name.	Position.	Salary.
J. C. Poole	Supt. Broadway Bridge.....	\$1,050 00
Michael O'Bryen	} Asst. Supts.....	800 00
James Monahan		600 00
Robert H. Wheeler		600 00

Bridges.—*Continued.*

Name.	Position.	Salary.
William Norton	{ Supt. Cambridge-st. Bridge..... Weston-ave. Bridge..... North Harvard-st. Bridge..... }	750 00
Henry C. Bolan	Supt. Charles-river Bridge.....	¹ 700 00
John C. Bolan	{ Asst. Supts..... }	700 00
Benjamin F. Arey		600 00
William J. Alcorn		600 00
Daniel S. Lawrence.....	Supt. Chelsea Bridge (south)	900 00
John J. McCabe.....	Asst. Supt. Chelsea Bridge (south) ...	700 00
Thomas Williams.....	“ “ “ ...	600 00
Miles Koen.....	Supt. “ (north) ...	900 00
Martin J. Griffin.....	Asst. Supt. “ “ ...	700 00
John Gill	Supt. Chelsea-st. Bridge	300 00
Morton Alden	“ Commercial-Point Bridge.....	50 00
Matthew J. Callahan.....	“ Congress-st. Bridge	1,050 00
Oscar Lidback.....	{ Asst. Supts..... }	800 00
Cornelius J. Callahan....		600 00
Timothy J. Harkins.....		600 00
Hugh Foley.....		600 00
Francis O'Brien	Supt. Dover-st. Bridge	\$900 00
Edward Conrey.....	{ Asst. Supts..... }	700 00
James V. Russell		600 00
James McGrady		600 00
John E. Pickell	Supt. Essex-st. Bridge.....	400 00
Jacob Norris	“ Federal-st. Bridge	1,000 00
William H. Morrison.....	{ Asst. Supts..... }	700 00
William O. Elliott		600 00
George C. Conant.....		600 00

¹ Also use of house on bridge.

Bridges.—Concluded.

Name.	Position.	Salary.
Dennis Murphy.....	Supt. Granite Bridge	200 00
John F. Ormand.....	" Malden Bridge	800 00
Hugh H. McNerlin.....	Asst. Supt. Malden Bridge.....	600 00
George Morrison	Supt. Meridian-st. Bridge.....	900 00
James Morrison	Asst. Supt. Meridian-st. Bridge.....	650 00
Daniel J. Holland	Supt. Mt. Wash.-ave. Bridge	1,000 00
Timothy Haphey	} Asst. Supts. Mt. Wash.-ave. Bridge {	700 00
John Kilty		600 00
Edmond O'Donnell		600 00
John Glavin.....	Supt. Neponset Bridge	400 00
A. D. Henderson	{ Supt. North Beacon-st. Bridge.... }	150 00
	{ " Western-ave. Bridge..... }	
Jotham Seavey.....	Supt. Warren Bridge.....	¹ 700 00
George A. Bradford.....	} Asst. Supts. Warren Bridge	700 00
George W. Harris		600 00
Edward Dolan		600 00
John S. Tewksbury.....	Supt. Winthrop Bridge	100 00
Frederic W. Lincoln.....	{ Commissioner West Boston and }	333 33 $\frac{1}{2}$
	{ Cragie's Bridges..... }	
Frederic W. Lincoln	Commissioner Prison-Point Bridge....	166 66 $\frac{2}{3}$

¹ Also use of house on bridge.

ASSESSORS' DEPARTMENT.

Name.	Position.	Salary.
Thomas Hills	Principal Assessor (Chairman).....	\$3,500 00
Benjamin Cushing.....	“ (Secretary).....	3,200 00
Benjamin F. Palmer	“	3,000 00
Joshua S. Duncklee.....	“	3,000 00
William B. Long	“	3,000 00
D. H. Morrissey.....	Office Clerk	2,500 00
Wm. E. Winn.....	Office Messenger and boy.....	300 00

CITY REGISTRAR'S DEPARTMENT.

Name.	Position.	Salary.
Nicholas A. Apollonio....	City Registrar	\$2,550 00
James M. Allen	Clerk	1,400 00
Franklin D. Rideout	“	1,300 00
John P. Brawley	“	1,200 00
Mary E. T. Bigelow.....	“	800 00
Mary E. Koen.....	“	600 00

STREET DEPARTMENT.

Name.	Position.	Salary.
Isaac H. Wright.....	Commissioner	\$3,000 00
Isaac S. Burrell.....	“	3,000 00
John P. Dore.....	“	3,000 00
J. H. Jenkins	Clerk	2,000 00

Street Department. — Concluded.

Name.	Position.	Salary.
<i>Paving Department.</i>		
James J. Flynn.....	Supt. of Streets.....	\$4,000 00
Charles R. Cutter.....	Assistant Supt. of Streets.....	(¹)
H. C. Bryant.....	Clerk.....	2,000 00
P. J. A. Murphy	"	1,600 00
Benjamin Magoun	Foreman.....	1,500 00
Daniel A. Dugan	"	1,500 00
Joseph P. Dunne	"	1,500 00
John A. Tobin	"	1,500 00
John Kennison	"	1,500 00
James K. Crowley	"	1,500 00
George W. Chase.....	"	1,500 00
William H. Foss.....	"	1,500 00
Michael Coyle.....	"	1,500 00
Michael F. O'Neil.....	"	1,500 00
Michael Meehan.....	"	1,500 00

OVERSEERS OF POOR.

Name.	Position.	Salary.
Frederick W. Lincoln....	Treasurer	\$1,000 00
Benjamin Pettee.....	Secretary	3,000 00
Henry Shaw	Settlement Clerk	1,800 00
George O. Wilson.....	Book-keeper	1,400 00
Josephine Newmarch.....	Clerk	1,000 00
Helen F. Murtagh.....	"	650 00
David B. Weston.....	Visitor	1,400 00
William Norton	"	1,400 00

¹ Salary not established.

Overseers of Poor.—Concluded.

Name.	Position.	Salary.
Charles J. Roath	Visitor	\$1,400 00
Thacher F. Sweat ...	“	1,400 00
Frank H. Cowing....	“	1,400 00
John P. Way	Engineer.....	1,500 00
John O'Brien.....	Janitor	1,000 00
Jos. Williams, M.D...	Physician	500 00
E. T. Williams, M.D.	“	300 00
Geo. Faulkner, M.D..	“	200 00
H. E. Marion, M.D. .	“	100 00
Dan S. Smalley	Agent	500 00
Geo. W. Warren	“	300 00
Samuel O. Little	Supply Department.....	1,100 00
John D. Reed	“	858 00
Dennis A. Flynn	Supt. Wayfarer's Lodge	1,200 00
Edward Riley	Asst. Supt. “	1,000 00
Addie E. Crockett ...	Matron Temp. Home	40 00 per mo.
Lydia C. Wiggin.....	Asst. Matron Temp. Home.....	30 00 “
Maurice Christian ...	Janitor “ “	25 00 “
Jane McKeen	Cook “ “	17 71 “

COMMON AND PUBLIC GROUNDS.

Name.	Position.	Salary.
William Doogue.....	Superintendent	\$2,200 00
Thomas X. Lawless	Clerk	1,500 00
James J. Doogue	Foreman	900 00
J. P. Greenwood	“	900 00
J. Stephen Dow	“	900 00

LAMP DEPARTMENT.

Name.	Position.	Salary.
Hugh J. Toland	Superintendent	\$3,500 00
Frank G. Wilkins.....	Clerk.....	1,200 00
Charles H. Prince	Foreman at shop.....	1,200 00
J. H. Chase	Tinsmith.....	1,080 00
H. H. Bowditch	Painter and Glazier	780 00
John Barry	Driver	780 00
John J. Mullen.....	Clerk at shop	750 00
Peter Ronan	Hostler	720 00

MARKETS.

Name.	Position.	Salary.
George E. McKay	Superintendent	\$2,500 00
Samuel Warden.....	Dep'y Superintendent	1,500 00
Charles O. Fox.....	Weigher	800 00

SEWER DEPARTMENT.

Name.	Position.	Salary.
Horace H. Moses.....	Superintendent	\$3,500 00
Jas. J. Costello.....	Clerk.....	2,000 00
Thos. J. Young.....	Engineer.....	1,680 00

SURVEY AND INSPECTION OF BUILDINGS DEPARTMENT.

Name.	Position.	Salary.
John S. Damrell	Inspector	\$2,800 00
Charles S. Damrell.....	Clerk of Dept.	1,500 00
M. W. Fitzsimmons.....	Asst. Inspector	1,550 00

Survey and Inspection of Buildings Department. — Concluded.

Name.	Position.	Salary.
William Frye	Asst. Inspector	\$1,400 00
Hartford Davenport.....	“ “	1,400 00
Geo. W. Griffin.....	“ “	1,400 00
Levi W. Shaw	“ “	1,400 00
Martin T. Glynn	“ “	1,400 00
John Kelly.....	“ “	1,400 00
James J. Barry.....	“ “	1,400 00
Nahum M. Morrison.....	“ “	1,400 00
James H. Collins	“ “	1,400 00
William J. Burke.....	“ “	1,400 00
Thomas A. Slater.....	“ “	1,400 00
Matthew Walsh	“ “	1,400 00
Michael H. Hartnett	“ “	1,400 00
William B. Bothamly	“ “	1,400 00
John Marley	“ “	1,400 00
George M. Barnard, Jr...	Book-keeper	1,200 00
Frank L. Wells.....	Permit Clerk	1,000 00

HEALTH DEPARTMENT.

Name.	Position.	Salary.
Samuel H. Durgin.....	Member Board of Health	\$3,000 00
Geo. F. Babbitt.....	“ “ “	3,000 00
William Taylor.....	“ “ “	3,000 00
J. H. McCollom.....	City Physician.....	2,700 00
Morton Prince	Asst. “	1,200 00
Chas. G. Davis.....	Inspector of Provisions.....	1,700 00
Martin Griffin	Inspector of Milk	1,800 00
C. E. Davis, Jr.....	Clerk	2,500 00
S. N. Dyer.....	“	1,500 00

Health Department.—Continued.

Name.	Position.	Salary.
John MacConnell....	Clerk	\$1,500 00
Fred S. Davis.....	"	960 00
J. H. Byrnes.....	Messenger	500 00
B. Meriam.....	Inspector Nuisances.....	1,600 00
H. M. Forristall.....	"	1,500 00
W. L. Hicks	"	1,500 00
T. A. Crawford.....	"	1,400 00
J. A. Duddy	"	1,200 00
S. G. Gage.....	"	1,200 00
J. O'Brien	"	1,100 00
P. F. Reddy.....	"	1,300 00
W. L. Richardson...	Medical Inspector.....	1,200 00
J. Noble.....	At Urinal on Common....	840 00
T. F. Byrnes.....	In charge of Urinals.....	720 00
Thos. Reilly	"	720 00
Mary Winterson.....	{ Cottage for females, } Common	360 00
Mary McShane.....	{ Cottage for females, } Public Garden	360 00
Sam'l A. Powers....	Supt. of Small-pox Hosp..	500 00
Mehitable Tuttle	{ Acting Matron Small- } pox Hospital	500 00
G. W. Boynton.....	Inspector at Abattoir....	1,500 00
F. L. Briggs	Supt. at the Morgue.....	300 00
Edw. McDonald.....	Supt. Copp's Hill.....	{ 70 00 per mo., 7 mos. 15 00 " 5 "
Geo. Fowler	{ Supt. North Cemetery, } Dorchester	70 00 " 8 "
Wilson Stanley.....	{ Supt. South Cemetery, } Dorchester	25 00 " 8 "

Health Department (Internal).

Name.	Position.	Salary.
Geo. W. Forristall.....	Supt. of Health.....	\$3,500 00
Daniel B. Curtis.....	Clerk	1,800 00
Wm. G. Davies.....	“	1,200 00

QUARANTINE DEPARTMENT.

Name.	Position.	Salary.
A. G. Griffin	Port Physician.....	\$1,200 00
Charles H. Coggsell	Asst. “	850 00
George F. Ranlett	Capt. Steamer “ Samuel Little ”.....	1,500 00
B. H. Smith.....	Engineer	1,080 00
John Jacobson	Mate	720 00
John Bradshaw	Fireman	600 00
John Ar Sing	Cook	600 00
H. H. Smith	Supt. Gallop’s Island.....	720 00
C. C. Fellows	} Assistants	360 00
George J. King		360 00
Annie Durgin	Cook	144 00
Rose Roach	Cook	144 00

PUBLIC LIBRARY.

Name.	Position.	Salary.
Mellen Chamberlain	Librarian	\$4,000 00
James L. Whitney.....	Principal Assistant.....	2,500 00
Arthur M. Knapp.....	Assistant Librarian.....	2,000 00
José F. Carret.....	“	2,000 00
W. H. Foster	Proof-reader.....	1,800 00

Public Library.—Continued.

Name.	Position.	Salary.
W. E. Ford	Janitor	\$1,500 00
A. P. C. Griffin	Custodian of Shelves	1,500 00
L. F. Gray	Office Secretary	1,050 00
L. Swift	Cataloguer	1,000 00
W. G. Adams	Watchman	900 00
H. N. Pike	Ordering Clerk	900 00
A. A. Nichols	Auditor	900 00
E. D. Fuller	Associate Ordering Clerk	900 00
L. F. Knowles	Receiving Clerk	600 00
M. A. McGrath	Asst. Ordering Clerk	600 00
E. T. Reed	" Catalogue Department	650 00
A. M. Porée	" " "	550 00
M. F. Osgood	" " "	600 00
H. C. Blake	Curator Card Catalogue	600 00
A. E. Hutchins	Asst. Catalogue Department	600 00
A. C. Miller	" " "	550 00
C. K. Burnell	Curator Official Card Catalogue	550 00
A. R. Dame	Asst. Clerk Ordering Department	500 00
Alice Browne	" Catalogue Department	500 00
E. J. Collins	Assistant	450 00
T. M. Whyte	Receiving Clerk	600 00
J. White	Porter	600 00
W. Monahan	"	500 00
W. Roffe	Assistant, Shelf Department	600 00
M. Doyle	" B. H.	450 00
F. C. Blaisdell	" Catalogue Department	800 00
W. M. L. Young	Clerk of Branches	450 00
John F. Murphy	Librarian's Runner	260 00
William Walsh	Runner	182 00

Public Library.—Continued.

Name.	Position.	Salary.
P. Carroll.....	Runner	\$182 00
W. Margison.....	“	182 00
W. H. Federhen.....	“	182 00
Benj. White.....	“	182 00
J. F. Keefe	“	182 00
W. Canny	“	260 00
J. S. Morrison	“	312 00
R. M. Eastman	Cataloguer U. S. Docs.....	375 00
Edward Tiffany.....	Librarian, Lower Hall.....	1,500 00
M. A. Jenkins	Asst. Librarian	700 00
W. F. Robinson.....	Registration Clerk	1,000 00
T. H. Cummings	Curator L. H. Card Catalogue.....	1,000 00
C. E. Porée.....	Asst. in Reading Room	600 00
S. A. Mack	Delivery Clerk	550 00
E. J. Mack	Receiving Clerk	550 00
Ella Dillon.....	Assistant	550 00
A. M. Kennedy.....	Registration and Assistant	500 00
R. B. Ross.....	Reading-Room, Evenings	300 00
A. G. Shea.....	Assistant, L. H.	312 00
F. Richards	“ “	260 00
M. Sheridan	Runner	208 00
L. Twickler.....	Asst. in Reading-Room	260 00
J. Twickler	Runner	156 00
C. A. McGrath	Receiving Desk, Evenings	156 00
R. J. Briggs.....	Runner	208 00
John Butler.....	Care of Shelves.....	225 00
A. M. Blake	Foreman of Bindery	1,200 00
P. B. Sanford	Binder	1,040 00
W. Sampson	“	1,000 00

Public Library.—Continued.

Name.	Position.	Salary.
Frank Ryder.....	Binder	\$1,000 00
W. Hemstead	"	780 00
A. Siguere.....	"	780 00
S. McConnell	"	312 00
M. Wheeler.....	"	494 00
S. Austin	"	494 00
M. Moriarty	"	468 00
S. Dumas.....	"	364 00
S. Morton	"	364 00
S. E. Bowen	"	416 00
S. C. Godbold.....	Librarian, East Boston	700 00
G. H. Hosea	Janitor "	600 00
M. R. Pray	Assistant "	500 00
A. M. Wing	" "	500 00
M. E. Cathcart.....	" "	350 00
N. J. Bullard.....	Librarian, South Boston.....	700 00
Jos. Baker.....	Janitor, South Boston	600 00
E. A. Eaton.....	Assistant "	600 00
Emma Davis.....	" "	500 00
Ida Sampson.....	" "	450 00
M. Watson.....	" "	350 00
S. Bunker	Librarian, Roxbury	700 00
C. R. Curtis	Janitor "	700 00
M. Bradley.....	Assistant "	500 00
Dora Puffer.....	" "	450 00
H. M. Bell.....	" "	450 00
L. C. Berry	" "	300 00
C. S. Cartée	Librarian, Charlestown.....	1,000 00
T. E. Smith.....	Janitor "	300 00

Public Library. — *Concluded.*

Name.	Position.	Salary.
A. E. Everle.....	Assistant, Charlestown.....	\$500 00
M. P. Swain	“ “	500 00
A. Willoughby	“ “	156 00
M. E. Brock	Librarian, Brighton	600 00
J. M. Brock.....	Janitor “	500 00
M. F. Grailey	Assistant “	350 00
S. A. Brock.....	“ “	85 00
M. G. Coffin	Librarian, Dorchester	700 00
Edw. Davenport.....	Janitor “	400 00
J. Sheridan	Assistant “	500 00
F. W. Pike	“ “	400 00
M. A. Hill.....	Custodian, Lower Mills.....	125 00
H. L. Towner	“ Mattapan	125 00
E. M. Ruggles	“ Neponset	125 00
Grace A. DeBorges	Librarian, South End.....	700 00
M. M. Morse.....	Assistant “	500 00
M. Sheridan	“ “	500 00
M. Arkinson	“ “	200 00
A. Percival	“ “	156 00
A. J. Barton	“ in charge, Jamaica Plain....	550 00
T. Johnson.....	Janitor “	300 00
N. F. Riley	Assistant “	500 00
A. M. Davis	“ “	25 00
R. M. Otis	Custodian, Roslindale	83 00
A. M. Hibbard	“ West Roxbury.....	100 00
E. R. Davis.....	Librarian, North End	700 00
M. E. Mooney	Assistant “	300 00
Jos. Fleming.....	Janitor “	300 00

PUBLIC INSTITUTIONS.

Name.	Position.	Salary.
<i>Directors' Office.</i>		
Wm. H. Hodgkins...	Clerk of the Board.....	\$3,000 00
Merritt Nash.....	Settlement Clerk.....	2,000 00
Frank W. Knowles ..	Book-keeper	1,800 00
Joshua T. Fuller	Office Clerk	1,200 00
Wm. A. Prescott	Office Clerk.....	1,000 00
Isaac Worsley.....	Messenger	1,350 00
John E. McCarthy...	{ Agent for Discharged Male } Prisoners	1,200 00
Chas. E. Grimmell ..	{ Assistant Agent for Discharged } Male Prisoners.....	800 00
Sarah P. Burnham ..	{ Agent for Discharged Female } Prisoners	500 00
<i>Deer Island.</i>		
John C. Whiton	Superintendent	\$2,500 00
W. Preston Wood ...	Asst. Superintendent	83 34 per mo.
John W. Dadmun ...	Chaplain	87 50 " "
John W. Dadmun ...	{ Supt. of Schools and Teacher } of Music	45 84 " "
Emanuel Schwab	Physician	100 00 " "
Alfred B. Heath.....	Asst. Physician	41 67 " "
Robert W. Kingsbury	Clerk	55 00 " "
Horace F. Atwood ...	Asst. Clerk	30 00 " "
Francis W. Piper....	Farmer	65 00 " "
Charles C. Paige	Engineer	75 00 " "
Albert S. Trask	Asst. Engineer	40 00 " "
Henry O. Spaulding .	Rec'g Officer.....	45 00 " "
George W. Beane....	Asst. Rec'g Officer	30 00 " "
William T. Quinn ...	Overseer	40 00 " "
William Stanwood...	"	35 00 " "
Edmund H. Witham..	"	35 00 " "
Francis B. Crowl....	"	35 00 " "

Public Institutions. — *Continued.*

Name.	Position.	Salary.
<i>Deer Island. — Con'd.</i>		
Frank Godding.....	Overseer	\$35 00 per mo.
Charles O. Gerrish...	“	30 00 “ “
John Q. Adams.....	“	30 00 “ “
Charles E. Holden...	“	35 00 “ “
Henry H. Coburn....	Gardener	40 00 “ “
Peter Bay.....	Baker	40 00 “ “
Charles Noll	Asst. Baker.....	35 00 “ “
Spencer Gloyd	Shoemaker	50 00 “ “
Anthony J. Currier ..	Cutter	60 00 “ “
James Starkweather .	Patrolman.....	30 00 “ “
Charles J. Flanders..	Officer of Scrub Gang.....	25 00 “ “
Charles H. Ackford..	Ferryman	30 00 “ “
Joseph H. Tarbell...	Office Helper	15 00 “ “
Thomas L. Vose	Rec'g Office Helper	20 00 “ “
Robert W. Leigh....	Wharfinger.....	25 00 “ “
Thomas Moore.....	Nurse	22 00 “ “
Charles Wipperman..	Watchman	25 00 “ “
George W. Robinson.	“	20 00 “ “
Forrest E. Shapleigh.	“	20 00 “ “
Ozias Raynor.....	“	25 00 “ “
Everett W. Marsh ...	“	25 00 “ “
Nancy E. Collins	Chief Matron.....	30 00 “ “
Katie E. McQuarrie..	Sewing “	25 00 “ “
Annie Vaughan.....	Kitchen “	25 00 “ “
Lena A. Keyser.....	Asst. Kitchen Matron.....	20 00 “ “
Nancy B. Davis.....	Laundry Matron.....	25 00 “ “
Emma M. Onthank ..	Relief “	20 00 “ “
Clara N. Butterfield..	Rec'g “	20 00 “ “

Public Institutions. — Continued.

Name.	Position.	Salary.
<i>Deer Island. — Con'd.</i>		
Lizzie C. Missler	Prison Matron.....	\$20 00 per mo.
Adeline F. Boothbay.	House “.....	25 00 “ “
Susie C. Cushing	Ass't House Matron.....	20 00 “ “
Ruth E. Aikins.....	H. of I. Hospital Matron.....	20 00 “ “
Annie M. Holmes....	A. H. “ “.....	20 00 “ “
Jane C. Meek	Nursery Matron	25 00 “ “
Lizzie McCabe	“ “.....	20 00 “ “
Hattie W. Parker....	Organist	25 00 “ “
Horace N. Moulton..	Teacher.....	41 67 “ “
Henry C. Twitchell..	“	41 67 “ “
Wilbur P. Safford ...	House Officer.....	35 00 “ “
M. W. Follansbee ...	Asst. House Officer	30 00 “ “
Zeno D. Baker.....	Yard Officer.....	40 00 “ “
Howard W. Upton...	Asst. Yard Officer.....	35 00 “ “
George W. Hill.....	Watchman	25 00 “ “
Frank A. Packard ...	Printer.....	75 00 “ “
Georgie A. Candage..	Teacher.....	25 00 “ “
Herbert L. Green....	“	50 00 “ “
Alberto E. Payson...	“	41 67 “ “
Miles Gliden	House Officer.....	30 00 “ “
Henry P. Daniels....	Yard “	25 00 “ “
William Gridley.....	Watchman	25 00 “ “
Mabel A. Wood	Matron	20 00 “ “
Silas P. Walker	Overseer.....	60 00 “ “
Lawrence M. Felch..	Asst. Overseer.....	30 00 “ “
William A. Witham..	“ “	25 00 “ “
Charles A. Dunham..	Physician.....	50 00 “ “
Caroline E. Walker..	Matron	20 00 “ “

Public Institutions. — *Continued.*

Name.	Position.	Salary.
<i>Deer Island. — Con'd.</i>		
Luella Witham.....	Matron	\$20 00 per mo.
<i>Stone Department.</i>		
Edward Doyle.....	Instructor.....	75 00 “
Michael McGinley ...	Blacksmith.....	55 00 “
<i>House of Correction.</i>		
M. V. B. Berry	Master.....	\$2,520 00
William H. Child	Deputy Master.....	1,000 00
Joseph H. Clinch	Chaplain	1,300 00
William L. Peavey ...	Clerk	1,000 00
George S. Christie...	Receiving Officer	650 00
Robert S. Norris	Shop Officer.....	600 00
M. B. Drury	“ “	600 00
L. Southard.....	“ “	600 00
A. M. Bagley	“ “	600 00
M. C. Putnam.....	“ “	600 00
John T. Foss.....	“ “	600 00
Henry S. Wood	Hospital Officer.....	600 00
William B. Burleigh .	Yard “	600 00
Philip M. Jennings ..	“ “	500 00
Frederick S. Lawson.	Prison “	450 00
Warren Jackson.....	“ “	600 00
John McKenna	Baker	400 00
Patrick Dacy.....	Gardener.....	500 00
E. G. Bunker	Yard Officer.....	600 00
Alton R. Crane	Watchman	350 00
Frank H. Dodge.....	“	300 00
William F. Clark	“	300 00
Selwyn Thompson...	Messenger	600 00

Public Institutions. — Continued.

Name.	Position.	Salary.
<i>House of Corr't'n. — Con'd.</i>		
G. P. Farnsworth.....	Engineer.....	\$1,100 00
E. F. Cushing	Cutter	1,000 00
I. M. Eagan	Gateman	300 00
Susan M. Wadsworth	Matron	300 00
Mary A. Phillips	"	300 00
Nancy R. Merrill	"	300 00
A. M. Starrett	Matron	300 00
E. E. Allen	"	360 00
C. N. Merrill.....	"	300 00
J. H. K. Downes	Organist	200 00
<i>Lunatic Hospital.</i>		
Theodore W. Fisher	Superintendent	\$2,500 00
Elisha S. Boland	First Assistant.....	1,500 00
S. M. Metcalf	Second "	600 00
Joseph Clinch.....	Chaplain.....	200 00
John Wade	Engineer	720 00
D. L. Philbrick.....	General Attendant	420 00
Warren B. Thomas.....	" "	360 00
Robert Morrison.....	Gardener.....	540 00
John McKenna	Baker	400 00
Mary Chisholm.....	Hospital Cook	5 00 per wk.
Elizabeth Gerrioir	House-keeper.....	26 00 " mo.
Jessie Munsie	Seamstress	20 00 " "
Abbie Shattuck	Laundress	21 66 " "
Charles F. Stevens	Gate-keeper	20 00 " "
Oscar L. Parkman.....	Night Attendant.....	20 00 " "
Orrin J. Brooks	Supervisor	35 00 " "
Fred Toothaker	Watchman	25 00 " "

Public Institutions. — Continued.

Name.	Position.	Salary.
<i>Lunatic Hosp't'l. — Con'd.</i>		
George Rhodes	Attendant	\$25 00 per mo.
G. W. Shepardson	"	20 00 " "
Charles S. Whitehill	"	20 00 " "
Oscar J. Crane	"	25 00 " "
Fred E. Coombs	"	25 00 " "
Edmund A. Greer	"	20 00 " "
S. I. Prescott	"	20 00 " "
Charles W. Kimball	"	20 00 " "
Isabelle Nicholson	Female Supervisor	25 00 " "
Abbie Brooks	Night Attendant	16 00 " "
Tilly Newcomb	Attendant	3 50 per wk.
Hester Newcomb	"	3 50 " "
Maggie Nash	"	3 50 " "
Ella Robbins	"	3 50 " "
Nellie Stevens	"	3 50 " "
Charlotte Aikin	"	3 00 " "
Effie McKay	"	3 00 " "
Lizzie Lowe	"	3 00 " "
Jennie Haskill	"	3 00 " "
Mary Campbell	"	3 00 " "
Kate Cullen	Kitchen Attendant	3 50 " "
Sarah Grant	" "	3 50 " "
Bridget Keilty	Laundry "	4 00 " "
Clara Hogan	" "	3 50 " "
Mary McDermott	Laundry Attendant	3 50 per wk.
Kate Thompson	House "	3 50 " "
Lizzie O'Hern	" "	4 00 " "
Sarah E. Osborne	Organist	3 50 " "

Public Institutions.— *Continued.*

Name.	Position.	Salary.
<i>Marcella-St. Home.</i>		
W. Preston Wood ...	Superintendent	\$125 00 per mo.
Jame E. Kelley.....	Teacher	50 00 "
Walter F. Sayward ..	"	41 67 "
Mina A. Steadman...	"	25 00 "
Mary Paul	"	25 00 "
Sarah Paul.....	"	20 00 "
Frances E. Banks....	"	25 00 "
Ella S. Morrow.....	"	20 00 "
Orville F. Rogers....	Physician	41 67 "
George F. Newell. ..	Engineer	50 00 "
Charles McKenna....	Baker.....	50 00 "
David Everetts.....	Yard Officer.....	35 00 "
George H. Mason....	House "	30 00 "
William T. Clapp....	Gateman	25 00 "
Henry Simpson.....	Expressman	20 00 "
William R. Spaulding	Watchman	25 00 "
Edwin C. Tower.....	Fireman	15 00 "
Frances M. Sylvester	Matron	20 00 "
Euph. W. Blackstone	"	20 00 "
Annie E. Candage ...	"	20 00 "
Carrie L. Anderson ..	Nurse.....	25 00 "
Helen M. Newell	Cook	17 00 "
Mary Shay.....	"	20 00 "
Mary Johnson.....	Chambermaid	10 00 "
Ann Welch.....	Laundress.....	18 00 "
<i>Steamer "J. Putnam Bradlee."</i>		
Jerome W. Bartlett..	Captain	\$125 00 per mo.
Samuel T. Johnson ..	Engineer.....	105 00 "

Public Institutions. — Continued.

Name.	Position.	Salary.
<i>Steamer "J. Putnam Bradlee."—Con'd.</i>		
Oliver Bowden	Mate	\$90 00 per mo.
Wm. H. Bertram	Assistant Engineer	75 00 "
George W. Bartlett ..	Deck-hand	62 00 "
Edmund Tillson	"	62 00 "
Daniel McCarthy....	"	62 00 "
Augustus Calkins....	Fireman	62 00 "
<i>Charlestown Alms-house.</i>		
James R. Gerrish....	Superintendent	\$800 00
Edward J. Forster....	Visiting Physician	300 00
Modena Wilkinson...	Matron	20 00 per mo.
Lilla B. Dimmoch ...	"	16 00 "
<i>Austin Farm.</i>		
Joel L. Bacon.....	Superintendent	\$125 00 per mo.
Howell A. Wildes....	Farmer	50 00 "
Joseph A. Wildes....	Farm hand	30 00 "
Oliver Libby	Milkman	26 00 "
James Fisher.....	Farm hand	20 00 "
Orville F. Rogers....	Physician	41 67 "
Sarah D. Miller.....	Matron	30 00 "
Mary A. Walker	"	25 00 "
Della J. Wildes	"	25 00 "
E. F. Tolman	"	25 00 "
Josephine F. Puffer..	Kitchen Attendant	2 50 per wk.
Annie Ross	" "	3 00 "
M. E. Fisher.....	" "	3 00 "
Hannah Long.....	Inmates' Cook	2 00 "

Public Institutions. — Concluded.

Name.	Position.	Salary.
<i>Austin Farm. — Continued.</i>		
Ellen Murphy	Nurse	\$2 00 per wk.
Mary E. Murphy	"	1 50 "
Annie Briggs	"	1 50 "

PARK DEPARTMENT.

Name.	Position.	Salary.
George F. Clarke....	Secretary and Clerk.....	\$3,000 00
Fred'k Law Olmsted .	Landscape Architect Advisory ..	2,000 00
H. A. Carson.....	{ For Superintendence at Back } Bay Park.....	300 00
"	{ For Superintendence on Cov- } ered Channel, Muddy River..	300 00
O. L. Shaw	{ Purchasing Agent for Back } Bay Park	600 00
"	{ Purchasing Agent for Covered } Channel, Muddy River....	600 00

POLICE DEPARTMENT.

Name.	Position.	Salary.
Thomas L. Jenks....	Commissioner (Chairman).....	\$3,250 00
Nathaniel Wales	"	3,000 00
Michael P. Curran...	"	3,000 00
Franklin C. Irving ..	Clerk, Board of Police Com'rs.....	1,800 00

Police Department. — Concluded.

Name.	Position.	Salary.
Miss Laura Price	Asst. Clerk, Police Com'rs Office ...	Liquor License Expenses. \$800 00 700 00 700 00
Miss Mary F. Gould..	“ “	
Mrs. Mary A. Magrath	“ “	
Samuel G. Adams ...	Superintendent of Police	3,000 00
Cyrus Small.....	Deputy Superintendent of Police....	2,300 00
Thomas Ryan	Clerk to Superintendent of Police ..	1,500 00
Edward H. Savage ..	Probation Officer.....	1,500 00
George E. Savory....	Property Clerk	1,500 00

FIRE AND FIRE-ALARM DEPARTMENT.

Name.	Position.	Salary.
Henry W. Longley	Fire Commissioner.....	\$3,000 00
John E. Fitzgerald.....	“ “	3,000 00
Edward A. White.....	“ “	3,000 00
William A. Green	Chief Engineer	3,000 00
Brown S. Flanders	Superintendent of Fire Alarms.....	2,600 00
Fred W. Smith, Jr.....	Clerk	1,900 00
B. Frank Underhill, Jr..	“	1,200 00
David L. Adamson	“	1,100 00

WATER DEPARTMENT.

Name.	Position.	Salary.
W. E. Swan	Clerk of Board	\$2,600 00
Joseph W. Swan	Asst. Clerk.....	1,200 00
H. S. Vanderbilt	Executive Clerk	1,500 00

Water Department.— *Continued.*

Name.	Position.	Salary.
Ezekiel R. Jones	Supt. Eastern Division	\$3,000 00
Desmond Fitzgerald	Supt. Western Division.....	3,000 00
Lucas Cushing	Asst. Supt. Eastern Division	1,800 00
Jacob F. Mayo	Foreman Proving Yard	1,200 00
Benjamin T. Turner	Foreman Main Pipe	1,200 00
Irving Jones	Clerk Proving Yard	1,200 00
Thaddeus Quinn.....	Engineer Roxbury Pumping-Works...	1,300 00
George Porter.....	Asst. Engineer Rox. Pumping-Works .	1,000 00
Royal Philbrick	Engineer E. Boston Pumping-Works..	1,000 00
<i>Water Registrar's Department.</i>		
William F. Davis.....	Water Registrar	\$3,000 00
Charles H. Little	Deputy Collector.....	2,200 00
Charles L. Bancroft.....	Clerk	1,700 00
Edwin Jennings	"	1,700 00
R. D. Child	"	1,700 00
J. G. McCawley	"	1,700 00
Stephen Badlam	"	1,500 00
John C. Farnham.....	"	1,300 00
Josiah Hayward	"	1,100 00
Theodore L. Kelly.....	"	1,100 00
G. DéCock.....	"	1,100 00
William Hickey	Marine Agent Eastern-avenue Wharf..	1,200 00
Cornelius F. Doherty	Clerk Service Division	1,200 00
Peter King.....	Foreman Service Division	800 00
<i>Mystic Water Works.</i>		
Joseph H. Caldwell	Water Registrar	\$2,500 00
Benjamin T. Hall.....	Asst. Clerk.....	1,400 00
Wendell P. Lee.....	"	600 00

Water Department.— *Concluded.*

Name.	Position.	Salary.
<i>Mystic Water Works. — Continued.</i>		
John A. Finnigan.....	Inspector	\$1,000 00
J. Henry Brown.....	Superintendent	1,800 00
Edward O'Donnell.....	Clerk, Superintendent's Department ..	800 00
Luther R. Symmes	Asst. Superintendent	1,300 00
Bernard Born	Engineer Pumping-Works	1,200 00
William S. Ware	{ Gauge-reader and Attendant at } { Newton Lower Falls }	300 00
<i>Inspection and Waste Division.</i>		
D. B. Cashman.....	Superintendent	\$2,000 00
M. J. Houghton	Asst. Superintendent	1,200 00
Charles P. Simmons.....	Clerk	1,000 00
Julia Scribner	"	624 00
Ellen J. Kelly	"	520 00
Thornton Lewis	"	416 00
<i>Meter Division.</i>		
Hiram Cutts.....	Superintendent	\$2,000 00
Oscar H. Simmons.....	Asst. Superintendent	1,200 00
Richard Lynch	Inspector	1,200 00
J. H. Maguire.....	"	1,200 00
C. C. Carpenter	{ Clerk and Assistant, Waste-Water } { Detectors }	1,200 00

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CITY OF



BOSTON.

MONTHLY STATEMENT

OF THE

TREASURY DEPARTMENT.

TREASURER'S OFFICE,
BOSTON, Sept. 3, 1883.

TO THE HONORABLE CITY COUNCIL : —

GENTLEMEN, — The undersigned herewith presents a statement of the receipts and payments of the Treasury Department of the City of Boston for the month of August, 1883, showing the balance of money remaining in the Treasury at the close of the month of August, 1883, and where deposited.

Respectfully submitted,

ALFRED T. TURNER, *City Treasurer.*

Monthly Statement of the Treasury Department.

Balance, July 31, 1883 \$1,963,778 45

RECEIPTS IN AUGUST, 1883.

From City Collector, on City Account	\$388,613 47	
From City Collector, on County Account	1,653 71	
		390,267 18
Temporary Loan, 1883-4		600,000 00
Cochituate Water 4% Loan, —		
New Main C. W. Works		70,000 00
From Sinking-Fund Commissioners, —		
For payment of Debt	\$57,000 00	
Refunded betterments and costs	178 58	
		57,178 58
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid		4,583 79
Interest on Bank Deposits		4,029 16
		<u>\$3,089,837 16</u>

PAYMENTS IN AUGUST, 1883.

On Mayor's general draft	\$481,224 82
“ “ special drafts	548,228 39
	<u>\$1,029,453 21</u>
Sinking-Fund Commissioners, Revenue, payable under authority of Ordinance on Finance	56,966 64
County of Suffolk, allowed by Auditor of the County of Suffolk	24,839 60
Liquor Licenses paid State of Massachusetts, ...	4,244 25
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters	4,115 80
Refunded Taxes, expenses, costs, etc.	78 48
Old Claims, Mayor's drafts, 1882-3, etc.	1 00
	<u>\$1,119,698 98</u>

RECAPITULATION.

Balance, August 31, 1883	\$1,963,778 45
Receipts during August, 1883	1,126,058 71
	<u>\$3,089,837 16</u>
Payments during August, 1883	1,119,698 98
Balance, August 31, 1883	<u>\$1,970,138 18</u>

STATEMENT

For the Financial Year 1883-84, from May 1, 1883, to Aug. 31, 1883, inclusive:—

Balance on hand May 1, 1883 . . . \$2,564,013 55

RECEIPTS.

From City Collector, on City

Account . . . \$1,658,892 38

From City Collector, on

County Account . . . 24,352 24

1,683,244 62

City 4% Loans,—

Charles River Embankment, \$200,000 00

City Point Park . . . 100,000 00

Improved Sewerage . . . 500,000 00

Library Lot, Dartmouth St.

and St. James Ave. . . 100,000 00

Muddy River Improvement, 100,000 00

West Roxbury Park . . . 300,000 00

Widening Kneeland Street, 1,000 00

1,301,000 00

Cochituate Water 4% Loans,—

New Main, Cochituate Water

Works . . . \$70,000 00

Introduction of Meters and

Inspection . . . 50,000 00

120,000 00

Temporary Loan, 1883-4

1,100,000 00

From Sinking-Fund Commissioners,—

For payment of Debt . . . \$229,000 00

Refunded betterments and

costs . . . 178 58

229,178 58

Premium on City Loans

61,740 00

Interest on Bank Deposits

22,634 93

Pay-roll tailings from Paymasters, settle-

ments with Cashier, parties unpaid . .

9,232 20

Tax Title, 249 Webster street

115 30

\$7,091,159 18

PAYMENTS.

On Mayor's general draft . \$1,991,272 54

“ “ special drafts . 2,744,764 24

\$4,736,036 78

To Sinking-Fund Commissioners, revenue

payable under authority of Ordinance on

Finance

147,483 91

Amount carried forward,

\$4,883,520 69

<i>Amount brought forward,</i>	\$4,883,520 69
County of Suffolk, allowed by Auditor of the County of Suffolk	113,462 04
Liquor licenses, paid State of Massachusetts,	69,844 25
City 5% Loan	41,000 00
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters	8,555 21
Refunded taxes, expenses, costs, etc.	3,527 97
Old claims, Mayor's drafts, of 1882-83, etc.,	932 16
Refunded betterments and costs	178 68
	<u>\$5,121,021 00</u>

RECAPITULATION.

Balance, May 1, 1883	\$2,564,013 55
Receipts from May 1 to August 31, 1883, in- clusive	4,527,145 63
	\$7,091,159 18
Payments to August 31, 1883, inclusive	5,121,021 00
Balance, August 31, 1883	<u>\$1,970,138 18</u>

Balance, August 31, 1883, as per preceding and monthly statements, as follows :—

Money deposited in the following banks :—

Merchants' National Bank	\$1,169,925 59
National Bank of Redemption	146,965 49
Howard National Bank	239,929 91
Globe National Bank	225,053 54
National Bank of Commerce, Pay-roll tail- ings account	4,792 49
	\$1,786,667 42
Cash and cash vouchers in office	183,470 76
Total as above	<u>\$1,970,138 18</u>

ALFRED T. TURNER,
City Treasurer.

CITY OF



BOSTON.

AUDITOR'S MONTHLY EXHIBIT.

GENERAL AND SPECIAL APPROPRIATIONS

FOR 1883-84.

OFFICE OF THE CITY AUDITOR, }
CITY HALL, September 4, 1883. }

TO THE HONORABLE CITY COUNCIL:—

GENTLEMEN, — The undersigned, in compliance with Chap. 14, Section 3, Revised Ordinances, herewith presents an exhibit of the General and Special Appropriations for the present financial year of 1883-84, as shown in the books in his office, September 1, 1883, including the September draft, — being five months' payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1882-83, the amount drawn September 1, the total expenditures, and the balance of each appropriation unexpended at that date.

Respectfully submitted,

JAMES H. DODGE,
City Auditor.

APPROPRIATIONS.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Sept. Draft, including Treasurer's payments in August.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncom- pleted public buildings and works, May 1, 1883, including Sept. Draft.
Advertising			\$1,200 00	\$1,200 00	\$188 85	\$1,036 43	\$163 57	
Architect's Department			13,000 00	13,000 00	1,108 65	6,590 89	6,409 11	
Armories			24,000 00	24,000 00	160 52	8,037 16	15,962 84	
Assessors' Department			105,000 00	105,000 00	6,948 17	63,227 94	41,772 06	
Auditor's Department			17,500 00	17,500 00	1,378 46	6,793 65	10,706 35	
Board of Health, etc., viz.:								
Board of Health			62,000 00	62,000 00	5,095 36	24,204 17	37,795 83	
Evergreen Cemetery		\$139 25	1,500 00	1,678 77	199 75	1,186 62	492 15	
Public Baths			15,000 00	15,000 00	1,984 66	7,592 64	7,407 36	
Quarantine Department			16,400 00	16,400 00	893 88	12,909 34	3,490 66	
Boston Harbor			4,500 00	4,500 00	172 35	804 16	3,695 84	
Bridges:—								
Bridges			67,000 00	67,000 00	6,556 88	28,738 19	38,261 81	
New Bridge to Cambridge	1,000 00			1,000 00			1,000 00	
Warren Bridge	99,710 55			99,710 55	4,669 78	5,491 45	94,219 10	\$5,780 90
Burnt District	82,348 53			82,348 53			82,348 53	6,363,828 12
Cedar Grove Cemetery	504 52	4,280 67	5,000 00	9,785 19	1,169 30	6,630 70	3,154 49	
Chestnut Hill Driveway			3,000 00	3,000 00	439 60	1,345 24	1,654 76	
City Debt			768,278 00	768,278 00			768,278 00	
City Loans, Redemption of, ...								
Received from Commissioners		229,000 00		229,000 00		229,000 00		
Revenue \$159,000 00								
Sinking Funds \$70,000 00								
Redemption of City Debt					57,000 00			
Proper								
Redemption of Mystic Water								
Debt								
Cost of Redemption of ma- tured bonds								
City Hospital			154,500 00	154,500 00	13,673 62	62,849 54	91,650 46	
Carried forward	\$183,603 12	\$233,419 92	\$1,257,878 00	\$1,674,901 04	\$101,639 83	\$466,438 12	\$1,208,462 92	\$6,369,609 02

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Sept. Draft, including Treasurer's payments in August.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including Sept. Draft.
<i>Brought forward</i>	\$183,603 12	\$233,419 92	\$1,257,878 00	\$1,674,901 04	\$101,639 83	\$466,438 12	\$1,203,462 92	\$6,369,609 02
City Registrar's Department			10,900 00	10,900 00	741 95	3,444 45	7,455 55	
Collector's Department			52,900 00	52,900 00	4,774 76	20,152 17	32,747 83	
Common and Public Grounds:								
Common, etc.			63,550 00	63,550 00	7,223 47	43,939 47	19,610 53	
Current expenses								
Concrete walks								
Plank walks								
Flagstaffs, Common, Public Gar- den, and Washington Park								
Play Grounds								
Curb-stones, Copley Square ¹			5,000 00	5,000 00			5,000 00	
Improvement of Copley Square			5,000 00	5,000 00	1,963 07	4,742 35	257 65	
Public Garden Pond	9,541 35			9,541 35		2,128 75	7,412 60	
Contingent Funds, viz.:								
Joint Committees			15,000 00	15,000 00	2,120 92	9,412 57	5,587 43	
Mayor			1,500 00	1,500 00	69 00	321 60	1,178 40	
Board of Aldermen			6,600 00	6,600 00	577 35	2,689 15	3,910 85	
Common Council			5,000 00	5,000 00	70 62	2,541 37	2,458 63	
County of Suffolk			360,000 00	360,000 00	28,079 37	141,566 46	218,433 54	
Damages by dogs						23 50	(\$28.50 provided for.)	
Deeds, Real Estate Advertising, etc.	5,485 33	4,914 12		10,399 45	2,801 15	5,698 16	4,701 29	
East Boston Ferries:								
East Boston Ferries			210,540 00	210,540 00	21,364 30	100,573 33	109,966 67	
Head-house, North Ferry, Boston side	4,548 88			4,548 88		4,528 19	20 69	
New Ferry Boat			50,000 00	50,000 00	52 70	672 22	49,327 78	23,479 31
Engineer's Department:								
Fire Department:			32,000 00	32,000 00	2,334 69	12,226 39	19,773 61	
Fire Department			601,043 00	601,043 00	39,473 50	306,685 25	294,357 75	
Fire-Alarm Telegraph			30,052 00	30,052 00	1,792 63	10,980 62	19,071 38	
Health Department			380,000 00	380,000 00	31,215 77	144,977 06	235,022 94	
<i>Carried forward</i>	\$203,178 68	\$238,334 04	\$3,086,963 00	\$3,628,475 72	\$246,295 08	\$1,283,746 18	\$2,244,758 04	\$6,393,088 33

¹ Transferred from Reserved Fund, \$5,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Sept. Draft, including Treasurer's payments in August.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including Sept. Draft.
<i>Brought forward.</i>								
Improved Sewerage ¹	\$203,178 68	\$238,334 04	\$3,086,963 00	\$3,528,475 72	\$246,295 08	\$1,283,746 18	\$2,244,758 04	\$6,393,088 33
Incidental Expenses	191,013 41	500,000 00		691,013 41	93,977 13	463,837 02	227,176 39	4,019,823 61
Inspection of Buildings		397 41	60,000 00	60,397 41	1,856 75	38,917 56	21,479 85	
Interest			33,500 00	33,500 00	3,318 30	14,296 80	19,203 20	
Lamp Department			1,562,968 00	1,562,968 00	5,632 00	358,440 67	1,204,527 33	
Law Department			500,000 00	500,000 00	35,688 14	166,060 01	333,939 99	
Liquor License Expenses:			23,000 00	23,000 00	1,872 00	9,338 93	13,641 07	
Police Commissioners					2,060 85			
City Clerk's Department					79 00	81,241 19	207,578 81	
Collector's Department		288,820 00		288,820 00				
Treasurer's Department					4,244 25			
Paid State, proportion of receipts, 69,844 25					807 55	3,979 19	7,240 81	
Markets			11,220 00	11,220 00	4,660 49	18,018 19	8,749 77	
Mount Hope Cemetery	4,559 54	7,465 42	14,743 00	26,767 96			19,621 75	558,378 25
Northampton-street District	19,621 75			19,621 75			1,067 84	
Old Claims			2,000 00	2,000 00	1 00	932 16	87,343 24	
Overseers of the Poor			113,750 00	113,750 00	5,924 03	26,406 76	4,977 55	
Park Department:					324 06	1,537 19		
Park Department	1,514 74		5,000 00	6,514 74				
Office Expenses								
Muddy River Survey, etc.								
Arnold Arboretum:								
Land	30,598 15			30,598 15			30,598 15	29,401 85
Driveways, etc.			15,000 00	15,000 00	1,026 36	2,458 10	12,541 90	
Charles River Embankment:								
Land	38,000 00	200,000 00		238,000 00	21,437 00	57,987 00	180,013 00	119,987 00
Borings, etc. ²			1,000 00	1,000 00	78 25	227 15	772 85	
City Point Park:								
Land	39,364 70	100,000 00		139,364 70		25,023 29	114,341 41	105,658 59
Filling, etc. ³			3,000 00	3,000 00	1,231 17	1,231 17	1,768 83	
Covered Channel, Muddy River	24,287 88		50,000 00	74,287 88	5,344 65	22,122 83	52,165 05	77,834 95
<i>Carried forward.</i>	\$552,138 85	\$1,335,016 87	\$5,482,144 00	\$7,369,299 72	\$435,858 06	\$2,575,821 39	\$4,793,506 83	\$11,304,172 58

¹ Total Appropriations, \$5,253,000; transferred August, 1876, by authority of an order of July 17, from Reserved Fund, \$40,000, and loans authorized, \$5,213,000; loans negotiated, \$4,207,000.

² Transferred from Reserved Fund, \$1,000.

³ Transferred from Reserved Fund, \$3,000.

AUDITOR'S MONTHLY EXHIBIT.

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APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers	Total Credits.	Sept. Draft, including Treasurer's payments in August.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including Sept. Draft.
<i>Brought forward</i>	\$552,138 85	\$1,335,016 87	\$5,482,144 00	\$7,369,299 72	\$435,858 06	\$2,575,821 39	\$4,793,506 83	\$11,304,172 58
Covered Channel, Stony Brook	3,192 50	..	..	3,192 50	..	2,014 66	1,177 84	125,199 51
East Boston Park, care, etc.	..	..	5,000 00	5,000 00	..	49 33	4,950 67	..
Muddy River Improvement	4,864 67	100,000 00	..	104,864 67	..	9,112 07	95,752 60	29,247 40
Park Nursery, Austin Farm	367 22	..	1,000 00	1,367 22	..	93 41	1,273 81	..
Public Park, Back Bay:								
Land	21,925 21	..	..	21,925 21	..	..	21,925 21	444,074 79
Filling, etc.	121,765 48	..	100,000 00	221,765 48	16,607 31	80,256 07	141,509 41	746,190 59
West Roxbury Park	..	..	..	..	..	..	..	..
Land	64,066 97	300,000 00	..	364,066 97	..	20,816 97	343,250 00	256,750 00
Care, etc.	..	..	5,000 00	5,000 00	791 38	2,087 94	2,912 06	..
Paving Department	..	..	800,000 00	800,000 00	131,968 20	426,477 67	373,522 33	..
Phillips Street Fund, Income	4,358 16	..	..	4,358 16	..	..	4,358 16	..
Police Department	..	..	970,324 00	970,324 00	78,670 72	384,643 44	585,680 56	..
Printing and Stationery (general)	7,250 00	..	37,500 00	44,750 00	4,873 01	14,797 66	29,952 34	..
Public Buildings:								
Public Buildings	23,340 99	6,007 11	136,650 00	165,998 10	14,809 36	79,098 06	86,900 04	..
Engine-house, Bunker Hill Street	..	..	25,000 00	25,000 00	87 72	191 40	24,808 60	..
Health Department Stables	2,613 97	..	..	2,613 97	112 24	2,511 57	102 40	..
Library Lot, Dartmouth st. and St. James av., ¹ Public Institutions, viz.:	..	100,000 00	..	100,000 00	7,525 00	57,175 00	42,825 00	..
House of Industry	..	..	176,200 00	176,200 00	16,423 34	68,070 31	108,129 69	..
House of Correction	..	..	90,400 00	90,400 00	6,286 64	52,013 52	38,386 48	..
Lunatic Hospital	..	..	60,000 00	60,000 00	5,041 41	27,829 88	32,170 12	..
Marcella-street Home	..	..	45,000 00	45,000 00	3,239 03	16,677 22	28,322 78	..
Almshouse, Austin Farm	..	..	27,000 00	27,000 00	1,290 21	9,268 53	17,731 47	..
Almshouse, Charlestown District	..	..	10,950 00	10,950 00	1,953 89	5,788 77	5,161 23	..
Pauper Expenses	..	..	159,000 00	159,000 00	3,324 14	67,122 18	91,877 82	..
Steamboat "J. Putnam Bradlee" New boilers, etc., steamboat "J. Putnam Bradlee"	..	..	14,000 00	14,000 00	1,446 90	10,064 21	3,935 79	..
Office Expenses	..	..	7,600 00	7,600 00	..	7,599 49	51	..
Stone-cutting, Deer and Rainsford Islands	..	..	8,500 00	8,500 00	997 16	3,706 94	4,793 06	..
Marcella-street Home, fences and grounds	..	..	16,000 00	16,000 00	228 20	3,399 40	12,600 60	..
Furnishing Master's house, House of Correction	1,004 92	..	..	1,004 92	..	445 00	559 92	..
..	..	..	2,000 00	2,000 00	..	1,999 60	40	..
<i>Carried forward</i>	\$806,888 94	\$1,841,023 98	\$8,179,268 00	\$10,827,180 92	\$731,533 92	\$3,929,131 69	\$6,898,077 73	\$12,905,634 87

¹ Loan authorized, \$180,000; loan negotiated, \$100,000.

APPROPRIATIONS, CONTINUED

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Sept. Draft, including Treasurer's payments in August.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including September Draft.
<i>Brought forward</i>	\$806,888 94	\$1,841,023 98	\$8,179,268 00	\$10,827,180 92	\$731,533 92	\$3,929,131 69	\$6,898,077 73	\$12,905,634 87
Public Lands			6,000 00	6,000 00	238 51	1,438 97	4,561 03	
Public Library	2,093 95		120,000 00	122,093 95	11,015 35	49,049 46	73,044 49	
Record Commissioners			4,500 00	4,500 00	295 03	1,648 53	2,851 47	
Record of Street Names	1,500 00			1,500 00			1,500 00	
Registration of Voters and Election Expenses:								
Registration of Voters			25,000 00	25,000 00	1,264 90	7,866 00	17,134 00	
Election Expenses			15,000 00	15,000 00	241 15	512 48	14,487 52	
Reserved Fund ¹			177,415 00	177,415 00			177,415 00	
Salaries			37,500 00	37,500 00	3,114 17	15,643 23	21,856 77	
Schools and School-houses, viz.:								
School Instructors			1,143,471 00	1,143,471 00	92,141 62	463,514 47	679,956 53	
Salaries Officers, School Committee			58,940 00	58,940 00	4,901 66	24,508 32	34,431 68	
School Expenses, School Committee			255,650 00	255,650 00	52,800 78	136,659 68	118,990 32	
Gibson School Fund, Income	2,084 95	77 00		2,161 95	27 70	487 66	1,674 29	
School-houses, Public Buildings			169,000 00	169,000 00	49,914 57	76,019 16	92,980 84	
Addition to Auburn-street School-house			5,000 00	5,000 00			5,000 00	
Addition to Chapman School-house	13,591 10			13,591 10	1,989 75	8,782 75	4,808 35	
Chapman School-house, furnishing			2,000 00	2,000 00	1,495 92	1,495 92	504 08	
Addition to School-house lot, Sumner-street, Dorchester ²			7,500 00	7,500 00		7,279 50	220 50	
Addition to East Boston High School-house	30,000 00		5,000 00	35,000 00	56 80	290 34	34,799 66	
East Boston High School-house, furnishing			2,000 00	2,000 00			2,000 00	
Enlargement of Lexington-street School-house lot			2,300 00	2,300 00		2,300 00		
English High and Latin School Buildings ³	1,547 43			1,547 43			1,547 43	467,830 82
George Putnam School, completion of			15,000 00	15,000 00	52 00	166 34	14,833 66	
Grammar School-house, Hammond-park st. Site								
Building			78,000 00	78,000 00		27,001 50	50,998 50	
<i>Carried forward</i>	\$857,706 37	\$1,841,100 98	\$10,308,544 00	\$13,007,351 35	\$951,083 83	\$4,753,706 00	\$8,253,673 85	\$13,373,465 69

¹ Transferred to Addition to East Boston High School-house, \$5,000.
Addition to School-house lot, Sumner street, Dorchester, \$7,500.

Charles River Embankment, Borings, etc., \$1,000.

City Point Park, Filling, etc., \$3,000.

Curbstones, Copley Square, \$5,000.

Primary School-house, Main street, Charlestown, \$1,055.

² Transferred from Reserved Fund, \$7,500.

³ Total appropriation, \$469,378.25; loan authorized and negotiated, \$350,000; transfer, \$16,378.25; appropriations, \$103,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Sept. Draft, including Treasurer's payments in August.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including Sept. Draft.
<i>Brought forward</i>	\$857,706 37	\$1,841,100 98	\$10,308,544 00	\$13,007,351 35	\$951,083 83	\$4,753,706 00	\$8,253,673 85	\$13,373,465 69
Grammar School-house, Kenilworth street.	34,546 47		7,500 00	42,046 47	5,819 50	25,590 87	16,455 60	88,856 90
Furnishing			- 6,200 00	6,200 00			6,200 00	
Primary School-house, Harbor View street.	12,000 00			12,000 00	25 55	122 53	11,877 47	
Primary School-house, Howard-avenue.	31,317 07			31,317 07	2,100 00	18,529 65	12,787 42	40,261 58
Furnishing			3,500 00	3,500 00			3,500 00	
Primary School-house, Main street, Charles- town:—								
Site			42,085 00	42,085 00			42,085 00	
Building			10,000 00	50,000 00	36 00	196 17	49,803 83	6,196 17
Primary School-house, O street	40,000 00		30,000 00	30,000 00			30,000 00	
Primary School-house, Parker street								
Primary School-house, vicinity of Blossom street:—								
Site			100,000 00	100,000 00			100,000 00	
Building								
School-house, Breed's Island:—								
Site	7,960 70			7,960 70	3,135 00	4,540 30	3,420 40	5,579 60
Building			9,140 00	9,140 00	725 99	3,865 63	5,274 37	
Sealer of Weights and Measures			250,000 00	250,000 00	43,318 53	131,228 26	118,771 74	
Sewer Department			2,000 00	2,000 00	58 00	623 89	1,376 11	
Sinking-Fund Commissioners				77,948 77	7,376 53	37,768 60	40,180 17	
Soldiers' Relief	77,948 77		40,000 00	40,433 41	9,967 41	38,301 68	2,131 73	292,770 71
Stony Brook Improvement	433 41			659 71			659 71	2,427,589 25
Suffolk Street District	659 71							
Surveyor's Department			30,000 00	30,000 00	2,279 84	12,224 45	17,775 55	
Temporary Loan			97,000 00	97,000 00			97,000 00	
Treasurer's Department			29,500 00	29,500 00	2,367 60	11,980 85	17,519 15	
Water Works:—								
Cochituate Water Works		216,518 24		216,518 24		171,164 23	45,354 01	
Running expenses					31,198 34			
Interest					490 00			
<i>Carried forward</i>	\$1,062,572 50	\$2,057,619 22	\$10,965,469 00	\$14,085,660 72	\$1,059,982 12	\$5,209,843 11	\$8,875,846 11	\$16,234,719 90

1 Transferred from Reserved Fund, \$1,085.

APPROPRIATIONS, CONCLUDED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Sept. Draft, including Treasurer's payments in August.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncon- pleted public buildings and works May 1, 1883, including September Draft.
<i>Brought forward.</i>	\$1,062,572 50	\$2,057,619 22	\$10,965,469 00	\$14,085,660 72	\$1,059,982 12	\$5,209,843 11	\$8,875,846 11	\$16,234,719 90
Additional Supply of Water ¹	219,141 48			219,141 48	45,664 34	119,857 97	99,283 51	5,637,603 29
New Main, Cochituate Water Works	9,486 78	70,000 00		79,486 78	18,907 91	20,347 55	59,139 23	290,860 77
Introduction of Meters and Inspection		50,000 00		50,000 00	2,513 27	3,010 97	46,989 03	
Mystic Water Works		67,218 57		67,218 57		64,674 69	2,543 88	
Running expenses					13,223 30			
Interest					630 00			
Proportions paid under con- tracts								
tracts					4,090 96			
Mystic Sewer	7,256 02			7,256 02	25 76	5,781 96	1,474 06	128,525 94
West Boston and other Bridges			11,500 00	11,500 00	369 59	4,843 74	6,656 26	
Widening and Extending Streets:—								
Widening Streets			100,000 00	100,000 00	7,764 83	35,352 89	64,647 11	
Broadway Extension	41,284 56			41,284 56	4,168 97	29,266 54	12,018 02	
Columbus Avenue Extension	3,012 70			3,012 70			3,012 70	
Commonwealth Avenue Extension, Brighton D Street Extension	25,727 76			25,727 76		11 25	25,716 51	1,307,975 98
Eastern Avenue and Bridge	8,800 73		55,000 00	55,000 00			55,000 00	61,987 30
Harrison Avenue Extension	13,569 79		10,000 00	18,800 73			18,800 73	199,283 49
Huntington Avenue Extension	3,604 17			13,569 79			13,569 79	46,199 27
Camden st. to Parker st. { Parker st. to Tremont st. }	49,099 42		40,000 00	3,604 17			3,604 17	186,430 21
Phillips Street Extension				89,099 42	7,554 44	31,740 83	57,358 59	126,515 83
Washington Street Extension			32,300 00					54,354 98
Widening Commercial Street	24,303 00			32,300 00	1,652 00	1,652 00	30,648 00	83,286 43
Widening Kneeland Street ²	12,471 83			24,303 00			24,303 00	1,645,697 00
Widening Portland Street	6,515 66	1,000 00		12,471 83		175 00	12,296 83	487,703 17
Widening South Street	85,352 31			7,515 66		7,000 00	515 66	120,484 34
Widening South Street, East Street to Kneeland Street	20,174 92			85,352 31		5,134 25	80,218 06	219,781 94
				20,174 92			20,174 92	119,825 08
	21,757 69			21,757 69		55 00	21,702 69	163,297 31
	\$1,614,131 32	\$2,245,837 79	\$11,214,269 00	\$15,074,238 11	\$1,166,547 49	\$5,538,747 75	\$9,535,518 86	\$27,114,532 23
						Less prov. for,	28 50	
							\$9,535,490 36	

¹ Total appropriations, \$5,736,886.80; loans negotiated, premium on said loans, and transfer from Reserved Fund, \$5,736,886.80.
² Loan authorized, \$180,000; loan negotiated, \$121,000.

CITY OF



BOSTON.

FOURTH ANNUAL REPORT

OF THE

RECORD COMMISSIONERS.

CITY HALL, August, 1883.

The Record Commissioners of the City of Boston herewith submit their Fourth Annual Report of the work performed in their department, in continuation of the Reports numbered 46 of A.D. 1880, 60 of A.D. 1881, and 123 of A.D. 1882.

In regard to the series of printed Reports, containing documents of the highest value for the history of Boston, it may be said that progress has been made during the past year, although not as rapidly as in other years. An attempt was made in 1882 in the City Council to materially alter the system of publication, and even to stop the entire work; although unsuccessful, the delay thereby caused prevented the prosecution of regular issues.

The Eighth Report, announced in our last communication, was finished in January. It contains the records of the town of Boston from 1700 to 1728, in continuance of our Seventh Report. The Ninth Report, being the Births, Deaths, and Marriages prior to 1700, is all in type, and will be issued probably in October. Another volume of Miscellaneous Papers has been begun, and will be included in this year's issues. Beyond this, the City Council has authorized the printing of a volume of Town Records, continuing on from 1728, and one of Selectmen's Records, which begin in 1700, and are continuous from that date.

Besides this, under votes of the City Council, the Third and Fourth Reports have been reprinted and stereotyped, and

it is expected that the Fifth and Sixth Reports will also be so reissued during the present financial year. When this is done it will be possible in future to supply complete sets of the Reports.

It may be fairly anticipated that if the publication of our town records be continued the general interest in the work will be increased. Already the period of special antiquarian value has been passed over, but the record of the town during the time of the French wars, and during the years immediately preceding the Revolution, will be read and prized by every citizen.

In regard to the copying of the church records, to repair the defects in the official registration of births, marriages, and deaths, a regular advance has been made.

The following list will show what has been done up to this time, and it will be seen that it covers the records of the earliest fourteen churches in the city : —

1. The First Church. Baptisms, 1630 to 1847. Admissions, 1630 to 1687.

2. The Second Church. Baptisms and Admissions, 1650 to 1740. In one volume, alphabetically arranged, being the printed pages from Rev. Chandler Robbins' history, carefully revised ; also, Baptisms and Admissions, 1741 to 1816.

3. The First Baptist Church. Admissions, Marriages, and Deaths, 1665 to 1879, arranged alphabetically according to the original.

4. The Old South Church. Baptisms, 1669 to 1875. Admissions, 1669 to 1713, and Communicants from 1716 to 1833.

5. The King's Chapel. Baptisms, 1703 to 1824. Burials, 1714 to 1844. Marriages, 1718 to 1842.

6. The Brattle Street Church. Baptisms, 1699 to 1805. Admissions and Marriages, 1700 to 1803.

7. The New North Church. Baptisms, Admissions, and Marriages, 1714 to 1800, alphabetically arranged and revised.

8. The New South Church. Baptisms, 1719 to 1812. Admissions and Marriages, 1719 to 1811.

9. Christ Church. Baptisms, 1723 to 1851. Marriages and Burials, 1723 to 1851.

10. The First Presbyterian Church (Federal street.) Baptisms and Marriages, 1730 to 1784.

11. Hollis Street Church. Admissions, Marriages, Baptisms, and Deaths, 1732 to 1847.

12. Trinity Church. Marriages, 1737 to 1820. Christenings, 1738 to 1820. Burials, 1738 to 1820.

13. The West Church (Lynde street). Baptisms and Marriages, 1737 to 1860.

14. The Second Baptist Church (Baldwin place, and now Warren avenue). Marriages, Admissions, and Dismissals, 1742 to 1847. Do., 1769 to 1881.

The next church in chronological order of its establishment will be the First Universalist (Dr. Streeter's), and then the Church and Chapel of the Holy Cross. Next to these stands the First Methodist, formerly in Hanover street and now in Temple street, the records of which are now being copied.

This completes the list of churches founded before A.D. 1800, omitting the Quaker or Friends Society, of which little seems to be known. In our last report a list is given of over seventy churches established between 1800 and 1847. The records of these churches will be brief, but they will be examined in due season, as they cover a period in which our City Registrar's records are very imperfect.

Many churches have ceased to exist, and it is probable that their officers have not duly considered the law prescribing their duties in that case. In Public Statutes, chap. 37, section 15, it is provided as follows:—

“When a church or religious society ceases to have a legal existence, and the care of its records and registries is not otherwise provided for by law, the person having possession of such records or registries shall deliver them to the clerk of the city or town in which such church or society was situated, and such clerk may certify copies thereof.”

That the law is a wise provision is evidenced by the following note, which explains the total loss of the records of one Boston church:—

BOSTON, June 10, 1879.

S. F. McCLEARY, Esq.:—

The Records of Bowdoin-street Church Society, which had been beautifully kept from beginning to the end, were burned in the great fire of Nov., 1872. All that is left of the records may be found in the Congregational Quarterly, Vol. XIV, p. 259, under title of Hanover Church, Boston, and continued in a subsequent number by Julius A. Palmer.

Yours,

GEO. PUNCHARD.

It is proper for the Commissioners to repeat their caution, that the copies preserved at City Hall have no legal value. Although great care has been taken to obtain exact copies, these transcripts should be examined and revised by some officer duly authorized by law to make them of equal

authority with the originals. Many of these old records are beautifully written, but many others are evidently the hasty entries of careless or inexperienced penmen. It is an axiom that lists of names are the hardest of all writings to decipher, since there is no clue given by the meaning by which to interpret any doubtful character. With this caution, however, it is believed that the volumes already prepared and rendered available by complete indices will be of great assistance to all who consult the records in the City Registrar's office.

As to the cost of the work for the financial year 1882-1883: of the expenditure for copyists, for records, and for the printed reports (the appropriation being \$4,500), the sum spent for copyists was \$4,019; for incidentals, stationery, binding, etc., \$88.35; making a total of \$4,107.35, and being, as usual, less than the appropriation.

For printing, only volume Eight was chargeable to the appropriation, and the cost thereof was \$869.86. By the Auditor's estimates (City Doc. No 42 of 1883) it appears that there was \$5,250 balance of unexpended appropriation of past years carried over. This amount will not only pay for volume Eight but for the reprinting and stereotyping of the volumes Three, Four, Five, and Six, which were out of print. The usual appropriation of \$3,500, for the year 1883-1884, will provide for the four new volumes authorized by vote of the City Council.

The Commissioners may be allowed to add that the printed reports are sought for not only by our citizens, but from all parts of the country. Nearly one-third of each issue has gone directly to libraries, public and private, in which complete sets are thus preserved. In many recent historical essays and books evidence will be found that the materials now made accessible have been at once utilized for the public amusement and instruction. The moderate expenditure now made annually, will, in a few years, suffice to print all the records of the town of Boston to the date when the city was chartered.

Respectfully submitted,

WILLIAM H. WHITMORE,

WILLIAM S. APPLETON,

Record Commissioners.

CITY OF



BOSTON.

SPECIAL REPORT

OF THE

BOSTON WATER BOARD

TO THE

CITY COUNCIL,

SEPTEMBER 6, 1883.

OFFICE BOSTON WATER BOARD,
BOSTON, Sept. 6, 1883.

To the Honorable the City Council: —

Under date of June 5, 1883, the Boston Water Board was requested to "report in print monthly, the condition and purity of the water supply; the consumption of the previous month; the progress of the work on Basin 4; the progress made in improving the other basins; the condition of the high-service, and what has been done in regard to preventing a contamination of the supply; together with such other information as can be given without interference with the working of the Department, or the proper prosecution of the work under charge of said Board."

No report has been made up to this time on account of the intermittent sessions of the City Council during the summer. In compliance with the above request, we now have the honor to submit the following report, which covers the whole period of the administration of the present Board.

CONDITION AND PURITY OF THE WATER SUPPLY.

The total available amount of water in the Sudbury river-basins, on September 1st, was 810,000,000 gallons; in Lake

Cochituate, 510,000,000 gallons. At the present rate of consumption these supplies will be exhausted in about forty-five days. At Mystic lake the quantity available above the pumping-point is 138,000,000 gallons, or about thirty days' supply.

The daily average consumption from the Sudbury and Cochituate works, for the month of August, has been about 36,000,000 gallons, — an increase of 8 per cent. over the same period for last year; from the Mystic works, 7,290,000 gallons, — an increase of 5.5 per cent. over August of last year; and at the Highland station, 3,168,000 gallons, — an increase of 5.1 per cent. over August of last year.

The average yield of the Sudbury river for the past month has been 5,900,000 gallons per day, and that of the Mystic lake about 3,000,000 gallons. Lake Cochituate has lost, by evaporation and soakage, 50,000,000 gallons more than it has received from its water-shed.

Early in the year the surface of the lake was nearly at high-water mark; but, owing to the steady flow of water in the aqueduct, and the long-continued drought, it has gradually fallen to a point where the supply can hardly be maintained.

The bottom of the aqueduct enters the lake at a point 13 feet 4 inches below high water. Five feet of water have been run continuously until the middle of August, when it was thought best to raise the head to 7 feet, in order to equalize the supplies from the Sudbury and Cochituate sources. The surface of the lake is now only $7\frac{1}{2}$ feet above the bottom of the aqueduct, so that there remain but 6 inches of water to draw from before the supply will be diminished. It is probable that pumping will have to be resorted to, in order to keep up the head at this point, until the lake shall fill again from the spring freshets of next year.

There are at Lake Cochituate quite extensive areas of shallow flowage. It seems desirable that these areas should be treated according to the same plan that has been adopted for Basins 2 and 3.

It will, however, be impossible to make any move in this direction until the completion of Basin 4 and the reduction of consumption in the city.

The rebuilding of the dam at the outlet is also one of the works which will have to be taken in hand at an early day.

In accordance with the recommendation of the Engineer of the Board additional pumping apparatus has been purchased, in order that the department may be fully equipped when required to pump the supply necessary for daily use.

It is a matter of common knowledge that the present season is the dryest experienced for upwards of 30 years, and this fact, in connection with the above statements, emphasizes the necessity for the exercise of the strictest economy in the use of water on the part of all consumers. In view of this exigency the Board has caused special notices to be inserted in all the papers published in Boston, urging the necessity of an economic use of the water throughout the city and in the cities and towns supplied from Mystic lake.

About one-third of the supply for the city proper is taken from Lake Cochituate and two-thirds from Sudbury river. It is characteristic of our rivers that, notwithstanding the nearly equal distribution of the rainfall throughout the different seasons, their flow in the summer months is comparatively insignificant. During the spring months, however, owing to the frozen surface of the ground, and the accumulations of snow, a very light rain produces much more water in the streams than a very heavy one in the summer; hence the lakes and basins fill up rapidly in the spring, and large volumes of water flow through them and run to waste, because of our lack of storage facilities. This waste over the dams usually ceases during the month of June, and after this period, each year, the water to supply the city is drawn from the storage-basins and the lakes.

The condition of the present storage-basins and lakes, with reference to the improvement in progress, will be considered later on in the report.

Early in June the Board secured the services of Professor E. S. Wood, of Harvard University, for the purpose of making periodical examinations and analyses of the Boston water supply. No necessity seems to exist for the publication of these detailed reports at this time, as they are on file, easily accessible, and show the water to be in a generally fair condition. The last report, however, may prove of interest, as the examinations seem to sustain the position of the City Council, that the impurity of the water is in part attributable to the imperfect construction of the Sudbury-river storage-basins. This report reads as follows :—

HARVARD MEDICAL COLLEGE, CHEMICAL LABORATORY,

BOSTON, August 31, 1883.

To HON. W. A. SIMMONS, *Chairman Boston Water Board*,—

DEAR SIR:—Below please find a summary of the results obtained by me in fortnightly analyses of the Boston Water Supply during June and July, the detailed reports of which have already been forwarded to your Board. The specimens of water were collected from various points

with the intention of showing, if possible, the influence of the various storage reservoirs and aqueducts upon the purity of the water.

The most important result obtained from these examinations is the showing that, in every instance, the water became more impure in passing through the artificial reservoirs, Basins 2 and 3; while it became purified in passing through Lake Cochituate and Farm pond. (At the time of the last examination, July 31, the water had been drawn off from Basin 2, and workmen were engaged in cleaning portions of the bottom.) The explanation of this is undoubtedly the fact that the bottom of these basins contained so much decomposing vegetation, due to the overflowing of large territory which was covered with air-growing plants without previously removing them. Naturally, several years must elapse before the *complete* decomposition of so large an amount of vegetation could take place with the result of giving to the basins a bottom of the same character as that of a natural pond. The time required to effect this would vary with different conditions, especially according to the amount of shallow flowage, and according to the constancy of the water level. It should especially be borne in mind that the head-waters of the three great storage-reservoirs connected with the Boston Water Supply, viz., Stony brook, which supplies Basin 3; Sudbury river, which supplies Basin 2, and Beaver Dam brook, which supplies Lake Cochituate, have essentially the same composition and the same degree of purity, while there is a very great difference in the character of the water as it flows out of Lake Cochituate and as it flows out of the two basins. Moreover, I think (although my information on this point may be incomplete) that other conditions which would affect the character of the water while in the reservoir, such as the character of the drainage area of the reservoirs themselves, which would affect the sub-soil water flowing directly into the reservoir (the springs so called), and the amount of dilution occasioned thereby, are essentially the same in the three instances.

The results obtained in these examinations show also that the water does not become purified in passing through either the Lake Cochituate or the Sudbury-river aqueducts.

No inferences of importance can be drawn with regard to the effect of Chestnut-Hill Reservoir, since the water as it flows in is a mixture of the Sudbury and Cochituate waters in uncertain proportion.

The water is not changed in character in passing through the service pipes, except that it loses a considerable amount, and sometimes all, of its free ammonia.

The color of the water has steadily diminished in the case of all the head-waters, probably owing to the dry weather and consequent diminution in the amount of surface washing.

Very respectfully yours,

EDWARD S. WOOD.

WATER ANALYSIS.

[Figures express parts per 100,000 of Water.]

STONY BROOK—HEAD OF BASIN III.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	1.5	0.0067	0.0424	0.32	2.80	4.70	7.50	1½
June 30, 1883	1.3	0.0069	0.0278	0.34	1.00	4.30	5.30	1½
July 14, 1883	2.4	0.0053	0.0268	0.40	2.70	3.70	6.40	2
July 31, 1883	2.5	0.0035	0.0306	0.46	2.80	3.50	6.30	1

BASIN III.—NEAR DAM III.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	2.4	0.0091	0.0434	0.30	1.80	4.75	6.55	1½
June 30, 1883	2.0	0.0021	0.0316	0.34	2.10	3.90	6.00	1½
July 14, 1883	2.2	0.0037	0.0412	0.36	2.60	4.40	7.00	2
July 31, 1883	2.2	0.0032	0.0372	0.32	1.90	3.90	5.80	1

HEAD OF BASIN II.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	1.8	0.0064	0.0384	0.28	1.00	5.00	6.00	1½
June 30, 1883	2.2	0.0035	0.0200	0.32	1.90	3.30	5.20	1½
July 14, 1883	2.5	0.0061	0.0192	0.24	1.70	3.20	4.90	1½
July 31, 1883	2.8	0.0059	0.0220	0.42	2.70	3.90	6.60	1

BASIN II.—NEAR DAM II.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	1.6	0.0133	0.0388	0.24	2.00	4.20	6.20	1½
June 30, 1883	1.5	0.0075	0.0276	0.28	1.80	5.00	6.80	1½
July 14, 1883	1.9	0.0075	0.0246	0.32	2.00	3.50	5.50	2½
July 31, 1883	2.7	0.0064	0.0268	0.42	2.20	3.70	5.90	1

FARM POND—INFLUENT CHAMBER.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	1.3	0.0166	0.0360	0.24	1.50	4.00	5.50	1½
June 30, 1883	1.5	0.0144	0.0284	0.28	2.30	4.30	6.50	1½
July 14, 1883	1.7	0.0112	0.0262	0.30	1.50	4.50	6.00	1½
July 31, 1883	2.3	0.0155	0.0358	0.36	2.80	4.10	6.90	1

FARM POND—EFFLUENT CHAMBER.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	2.1	0.0080	0.0350	0.25	1.40	3.30	4.70	1½
June 30, 1883	1.8	0.0066	0.0280	0.26	2.10	4.00	6.10	1½
July 14, 1883	1.8	0.0048	0.0224	0.30	1.40	4.70	6.10	1½
July 31, 1883	1.8	0.0064	0.0324	0.38	2.10	3.90	6.00	1

SUDBURY AQUEDUCT—TERMINAL CHAMBER.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	2.1	0.0083	0.0322	0.24	2.50	3.30	5.50	1½
June 30, 1883	1.8	0.0040	0.0296	0.30	2.10	4.70	6.80	1½
July 14, 1883	1.9	0.0008	0.0240	0.30	2.40	3.80	6.20	1½
July 31, 1883	2.0	0.0037	0.0288	0.38	2.70	3.40	6.10	1

BEAVER-DAM BROOK.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	1.5	0.0096	0.0400	0.28	5.00	5.00	10.00	2½
June 30, 1883	1.9	0.0147	0.0340	0.38	3.80	4.40	8.20	2½
July 14, 1883	2.4	0.0040	0.0194	0.42	3.30	3.40	6.70	3
July 31, 1883	3.6	0.0021	0.0208	0.82	4.20	3.00	8.20	2

LAKE COCHITUATE—GATE-HOUSE.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	5.3	0.0052	0.0242	0.46	5.10	3.40	6.00	1½
June 30, 1883	4.5	0.0008	0.0140	0.42	2.40	3.00	5.40	2
July 14, 1883	4.7	0.0032	0.0142	0.34	2.10	3.10	5.20	2
July 31, 1883	5.0	0.0013	0.0198	0.48	1.80	3.20	5.00	1

TERMINUS COCHITUATE AQUEDUCT.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	6.5	0.0043	0.0244	0.44	2.00	4.40	6.40	2
June 30, 1883	5.2	0.0008	0.0130	0.42	2.40	3.00	5.40	2
July 14, 1883	5.5	0.0072	0.0170	0.38	2.10	3.40	5.50	2
July 31, 1883	5.0	0.0005	0.0174	0.44	2.30	3.30	5.60	1

C. H. RESERVOIR—EFFLUENT CHAMBER.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	3.8	0.0075	0.0224	0.38	1.70	3.60	5.30	1½
June 30, 1883	3.0	0.0061	0.0154	0.36	1.70	2.90	4.60	1½
July 14, 1883	2.6	0.0032	0.0194	0.42	2.70	2.50	5.20	2
July 31, 1883	2.7	0.0035	0.0214	0.42	2.10	3.30	5.40	1

SERVICE—NORTH GROVE STREET.

LOCATION.	Color.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
					Fixed.	Volatile.	Total.	
June 15, 1883	3.5	0.0037	0.0214	0.36	1.90	3.30	5.20	1½
June 30, 1883	3.1	0.0008	0.0144	0.32	2.10	3.40	5.50	1½
July 14, 1883	3.0	0.0000	0.0184	0.28	2.40	3.30	5.70	2
July 31, 1883	2.7	0.0000	0.0226	0.32	2.20	2.80	5.00	1½

It is not to be supposed that the complaints of impure or bad-tasting water are altogether due to imperfectly constructed basins. Indeed, complaints in this direction were made as far back as 1854, and have been continued at intermittent periods since that date. Scientific investigations have been made at various times for the purpose of ascertaining the causes of the trouble, and the reports of Professors Horsford, Jackson, Nichols, Remsen, and others, have been presented to the City Council, and form part of the records of the Water Department. Aside from what may be technically termed the inherent or natural causes of pollution, such as the presence of *algæ*, *spongilla*, and decomposing vegetable matter, are the evils arising from the sewage and drainage of the several communities adjacent to our water sources.

This cause of pollution, both in the Cochituate and Mystic supplies, was originally considered to be of insignificant moment, and hence no particular steps were taken to guard against it; but the steady growth of the industrial interests in the towns whose drainage empties into these sources, together with the introduction of independent water supplies, have so increased the flow of sewage into our water sources as to create a very serious and growing evil.

In the Mystic Department the water-shed which supplies the lake is of comparatively limited area. The population within this district is compact and numerous; the factories, such as tanneries, glue establishments, etc., are many, and constantly increasing both in number and magnitude; and there is no system of sewerage, except the natural one, into the streams that feed the lake. The inevitable result of this state of things will in the near future be such a contamination of the water supply as to render it unfit for domestic use. This is not alone the opinion of the present Water Board, but also that of Dr. H. P. Walcott, chairman of the

State Board of Health; of Prof. Wood, of the Harvard Medical College; of Mr. Wightman, Engineer of the Board; and of other scientific gentlemen who have given the matter attention.

Several years ago, in accordance with an act of the Legislature, the city undertook to dispose of the factory refuse and sewage in such a manner as would avoid the complaints of the citizens of contiguous towns. A sewer and several purifying cisterns were built under the direction of Engineer Wightman, and up to a recent date there has been no complaint.

Since the present Board came into office, the selectmen of the towns of Medford and Arlington have made official complaint, to the effect that the City of Boston was not complying with the law which required it to abate the so-called sewage nuisance.

At the time of this complaint it was alleged that the outflow of sewage had caused the death of large numbers of fish in the lower Mystic, and that the stench therefrom was intolerable.

The Board had already employed a large force of men, who collected and buried upward of one hundred thousand dead fish found floating in the lower Mystic below the source of supply. None of these, however, were decayed; no smell had arisen from them; and hence the complaints of the town authorities on that score at least were groundless. Our employes, however, did find various dead animals, such as hogs, goats, hens, etc., on the shores of the lake or river within the limits of the towns complaining, in full process of decomposition, and these were undoubtedly the real cause of complaint.

The present outflow through the sewer built by the city is about 300,000 gallons every twelve hours. This is largely the refuse of the tanneries and glue-factories before mentioned, which, if not carried off in the sewer built by the city, would flow into Mystic lake.

We are obligated by the law to so treat this sewage that its flowage into tide-water shall not be considered a nuisance. The Board has given a great deal of attention to the solving of this problem.

Messrs. Woods and Babb, of Medford, were permitted to make certain experiments under what is known as the upward filtration system, but failed to reach any satisfactory results.

Mr. Farquhar, the representative of the "Farquhar Oldham Filtration Co.", of New York, visited the lake, examined the condition of things, and believes he can successfully treat this sewage. The Board shipped several barrels of this material to New York, visited the latter city, saw the sewage

treated by the Farquhar machine, and the results appeared to be satisfactory. The Board also visited Seabright, N.J. in conjunction with Mr. Farquhar, Engineer Wightman, and Dr. Walcott, of the State Board of Health. A machine was in practical operation at this place, filtering the sewage of the town and apparently doing the work satisfactorily.

The Board has accepted a proposition from the "American Filter Company," of this city, to set up one of its machines at Mystic lake, at its own expense, for the purpose of ascertaining whether it can successfully treat the refuse.

Mr. H. W. Wilson, of Boston, who has given these matters a great deal of attention, has been also consulted by the Board, and is now prosecuting investigations. His report thereon will be forthcoming at an early day. Various inquiries and investigations have been made in other directions, but with no substantial result.

Aside from this question of sewage contamination there are other sources of pollution in the Mystic supply, to which we shall take occasion to refer later in the year. The pollution and impurity which find their source in decomposing vegetable matter, shallow flowage, etc., were, in the early summer, largely prevalent in Wedge pond, Bacon's pond, and certain portions of the Abajonna river, these being the principal tributaries to Mystic lake. The smallness of the Mystic appropriation has prevented a large amount of labor being done to remove these sources of pollution; but a small force of laborers has been constantly employed on this work, and a great deal has been accomplished. Very much more, however, could be done with the money in hand to do it, and the paucity of appropriation is much to be regretted, especially in view of the fact that the present dry season presents unusually favorable opportunities to do this work.

Mr. J. H. Brown, the Superintendent of the department, has had these matters in charge, and his labors have been efficiently and satisfactorily performed.

There are no questions of impurity or pollution in connection with the Sudbury-river supply that need be discussed in this report, except so far as they appear under the head of Basins or Reservoirs. In referring to the condition of the supply in Lake Cochituate it is proper to consider the large amount of sewage constantly flowing into the lake through the waters of Pegan brook. The drainage area of this brook covers a considerable portion of the town of Natick. In the early history of our supply the town was small, its industries few, and the drainage into the brook scarcely more than a mere surface product. Within the last twenty years large factories have been erected, a gas-house and hotels

built, and these, with the natural increase of population and a new town water supply, have tended very largely to increase the flow of Pegan brook. This increase of flowage in the brook is represented entirely by the sewage of the houses, factories, etc. The flow of water-closets and drain-pipes, built in consequence of the new water supply of the town, finds its way directly into the waters of this brook, so that from 300,000 to 600,000 gallons are emptied into it every twenty-four hours. The distance from the points of this increase to the entrance of Lake Cochituate is not more than one mile, and when it is considered that all scientific authorities agree that sewage of this character is very injurious, if not positively dangerous, to a water supply, the extent of the trouble will be more fully appreciated. It is true that some attempts have been made to lessen the effects of the evil by the erection of several basins, into which the sewage is permitted to run, and subsequently to filter through gravel banks into the water of the lake. This mode of filtration is very imperfect; the basins are very unclean; the brook in equally bad condition; the whole affair, in fact, is a mere tide-over attempt to dispose of the sewage with as little trouble and expense to the town as possible.

The Board, adopting the same course it pursued in the Mystic Department, has been endeavoring to ascertain how the sewage can be treated so as to work the least injury to the Cochituate supply. We have had several conferences with the Natick authorities, have visited the scene of trouble many times, caused examinations to be made by scientific men, and have also fully advised with the corporation counsel as to the legal aspects of the matter. We expect to reach a conclusion at an early day, and shall make it the subject of a special communication to the City Council. It is hardly necessary to add that the policy of the Board is to avoid any litigation with the Natick authorities, if possible; to find a remedy for the existing troubles, and apply it in a manner that shall be agreed upon between the parties in interest. There has been no complaint on the part of the public, up to date, with reference to the quality of the water, nor has there been either sickness or death, within our knowledge, attributable to water pollution. It is well understood that the only permanent method of disposing of the sewage of such towns as Natick, Woburn, and Winchester, is by a metropolitan system, which shall find its outlet in the sea; and it is believed that all other methods will prove of a temporary character only.

THE NEW BASIN No. 4, ASHLAND.

This new and important work received the early attention of the present Board. On the 4th of June last, Mr. W. F. Learned, for many years assistant engineer of the city, was appointed resident engineer and superintendent.

Mr. Learned assumed the duties of his office on that date, and was specially instructed by the Board to push the work forward with all possible energy, and to employ all the force that could be used to advantage. He has performed this duty to the satisfaction of the Board. The average number of men employed since June 1, 1883, is 338, and of horses 114. The area of the muck to be removed is 63 acres; 33 acres have been stripped since July 23, and, unless there are heavy rainfalls during the autumn, the whole area of the muck will be removed before winter. The area of the slopes of the basin is 99 acres, from 35 of which the loam or muck has been stripped for the use of the Park Commissioners. The transportation of the loam from the basin, and of gravel for the building of the dam, requires a large railroad plant, and the Board originally intended to purchase the same; but upon investigation, finding that it would necessitate the expenditure of some \$30,000, the plan was abandoned, and other arrangements, approved by the Engineer, and satisfactory to the Board, have been entered upon. The details of these arrangements are spread upon the records of the department, and can be readily examined at any time.

The total appropriations for this work amounted	
to	\$690,000 00
Total amount expended to September draft,	
1883	299,743 08
Unexpended balance	<u>\$390,256 92</u>

The original estimates for this work were based upon labor at the then prevailing price of \$1.50 per day; this rate has been increased by order of the City Council to the sum of \$2 per day; hence, if the appropriations prove insufficient to complete the work, due allowance should be made for the deficit represented by the increase in the per diem price of labor. The work has been carried on in accordance with the plans of Mr. Henry M. Wightman, the Engineer of the Board, and under his supervision as general superintendent. It has been done to the entire satisfaction of the Board, and its members have been especially gratified at the great progress that has been made. Mr. B. E. Church, Chief Engineer

of the New York Department, and in charge of the new reservoir and aqueduct of that city, visited the basin in July, and expressed his warm approval of the plan and method of work.

Mr. Henry M. Wightman, the Engineer of the Board, under date of August 25th, reports as follows:—

“The work upon this reservoir has been very actively prosecuted since the commencement of the present season. The appropriations made by the City Council, June 2d, 1883, for removing loam and deepening shallow flowage, aggregate \$256,000, which amount, added to the original appropriation for the construction of the reservoir, \$394,000, makes the total amount to be expended, \$650,000 (exclusive of \$40,000, original loam appropriation).

“The most difficult work, that of securing a proper foundation for the construction of that portion of the cement concrete core or spiling wall of the dam which was below the original surface of the ground, has been completed. The work now remaining to be done upon the dam consists principally in the completion of the cement concrete core, involving the use of about 6,900 cubic yards of concrete, for which 10,000 barrels of hydraulic cement are required, and the making of about 192,000 cubic yards of embankment, requiring the transportation and deposit on the site of the dam of that amount of material from other portions of the reservoir. The roll-way and a portion of the overflow are built, and the gate-chamber is nearly completed, in readiness for the superstructure; the most of the 48-inch effluent pipes in connection with this structure are also laid and covered with the necessary brick-work.

“In the reservoir the work of stripping it of the loam and muck, and piling the same beside the railroad track, preparatory to its removal either to the Back Bay Park, or to a place of deposit at the extreme westerly limits of the reservoir, is progressing rapidly.

“The railroad plant for the final transportation of the loam and muck to its destination, and also for the transportation of the material for the embankment, is now within the limits of the reservoir, but is not as yet actively engaged in the prosecution of its work, owing to delay in receipt of rails and non-completion of certain work upon the trestles and grading of a road-bed for the track to the dam.

“The plant consists of two engines, with dump-cars, and a steam excavator furnished by N. C. Munson & Co., under agreements made with your Board. This plant is to be increased as the demands of the work require.

“The amount of loam and muck to be removed from the

reservoir is approximately 300,000 cubic yards; and of this amount 68,000 cubic yards are now piled up in position for final removal.

"It is not expected that the large amount of work indicated by the figures given can be accomplished before the close of another season, notwithstanding the extensive plant, comprising all modern appliances for the rapid prosecution of such enterprises, which has been provided. The work is of such a nature that it cannot be carried on during the winter months nor during freezing weather."

BASIN No. 2.

It was not expected that much work could be done toward the deepening of the shallow flowage in this basin until next year. The unusual dryness of the season, however, caused the water to be exhausted before the end of July. As the surfaces of mud and loam dried quickly on exposure to the sun, an excellent opportunity was afforded to carry out the instructions of the City Council with reference to this work. An engineering force was accordingly organized early in August, sections of the valley made, and 150 men and 20 teams employed. Later in the month an arrangement was made with N. C. Munson & Co. to work in another part of the basin, and the whole work has been vigorously prosecuted ever since, under the immediate direction of Mr. Desmond Fitzgerald, Engineer of the Western Division, and the general supervision of Mr. Henry M. Wightman, Engineer of the Board. The latter, in his report under date of August 25th, says:—

"The early exhaustion of this reservoir, due to large consumption and extremely dry season, rendered it practicable to commence the work of deepening its shallow flowage, for which purpose an appropriation of \$80,000 was made by the City Council, on June 2d of the present year.

"It being the desire of your Board to accomplish such portion of the work as the present exceptionally dry season would permit, an engineering force was employed to do the necessary preliminary work of making cross-sections of the shallow portions of the basin, for the purpose of determining with accuracy the amount of material to be removed, and the proper areas for depositing it. This work was so rapidly performed that a force of men and teams commenced operations at the westerly end of the basin on July 28th, within a week from the time the engineering force was employed.

"Since that date excellent progress has been made in deepening the section commenced on, and all the force which it

was practicable to work has been employed under an arrangement made by your Board. N. C. Munson & Co. has commenced work upon another section of this reservoir, with a large force of men and teams."

The original estimates for the work upon this basin were made upon the supposition that it would be necessary to do a considerable portion of the work by dredging; and the appropriation made was for the purpose of deepening the edges, and doing away with the shallow flowage. The water being unexpectedly exhausted, we shall be able to do the work quicker than was anticipated, and probably with a much less expenditure of money. The deepening of the edges will make a vast improvement in the basin; but the exposure of the whole surface shows a large amount of muck or loam beyond the limits of shallow flowage, which ought to be removed, and, if the present favorable season continues, it can be done better and cheaper now than at some future time. Under these circumstances, the Board asks for authority to remove such quantities of this muck or loam beyond the limits of shallow flowage as may be recommended by the Engineer of the Board, and not interfere with the present work, nor require any expenditure of money beyond the appropriation already made.

FARM POND AND BASIN NO. 3.

The appropriation for building the Farm-pond conduit is \$160,000. It is well understood that the purpose of this conduit is to convey the Sudbury-river supply direct to the city, whenever it may be necessary to do so, instead of taking it through the waters of Farm pond. This is one of the most important improvements projected by the City Council, as the constant increase of population and steady growth of industrial interests in the vicinity of the pond are liable, in the near future, to so contaminate its waters as to make it desirable, if not absolutely necessary, that the Sudbury supply should not be mixed with or filtered through it.

In consequence of the unusual drought, the Engineer of the Board has not deemed it advisable to begin this work until the pond could be drawn down without endangering the supply to persons who are entitled to the same. At the request of the Board, however, Mr. Wightman has completed the plans and specifications for the new conduit and the preliminary work will be entered upon later in the year.

The appropriation for shallow flowage in Basin No. 3 is \$125,000. The work upon this basin cannot be begun until after that of Basin 2 is completed, or, at any rate, until such

time as Basin No. 2 can be filled, making it possible to draw the water from Basin 3 ; hence it is probable that little or no work will be done upon this basin until next season.

HIGHLAND HIGH-SERVICE WORKS.

The present condition of this branch of the water service of the city demands the immediate and earnest attention of the City Council. The present system of high-service supply was devised in 1869 for the Roxbury districts. Since that time the area of high-service supply has been increased from 760 to 10,720 acres, by the annexation of Dorchester, West Roxbury, and Brighton, and the extension of the supply to Beacon Hill. Applications are constantly made to the Board for this service by those who are not satisfactorily supplied with the low-service. These large extensions and constant additions make it imperatively necessary that the subject should at once be considered by the City Council, and in this connection your attention is respectfully called to the communication of our predecessors, under date of March 12th, 1883. Mr. Wightman, the Engineer of the Board, who is entirely familiar with this subject, at our request, made a special report on the matter, which reads as follows :—

REPORT OF ENGINEER WIGHTMAN ON HIGH-SERVICE.

"The inadequacy of these works to supply much longer the increasing demands upon this capacity is becoming very apparent.

"The consumption as compared with that of last year shows a large percentage of increase, as will be seen from the following figures :—

January, 1883,	3,158,500	gallons,	16.5	% increase.
February, "	3,093,900	"	13.5	" "
March, "	3,238,500	"	26.9	" "
April, "	2,949,400	"	14.5	" "
May, "	3,081,150	"	10.4	" "
June, "	3,273,080	"	7.6	" "
July, "	3,281,000	"	8.6	" "

"For the seven months the average is 14 per cent. more than the consumption of last year.

"The consumption of last year was 15.7 per cent. greater than that of the previous year.

"The Worthington pumping-engine, which is constantly in service at this station, is now doing at times from 20 to 30 per cent. more work than it was built to perform. Although

it is an excellent machine, it is working under disadvantageous circumstances, and it is not to be supposed that it can continue to do so without the risk of an accident. The duplicate pumping-engines at this station have been run during the present season for about a month, while repairs were made upon the Worthington, and their action was extremely harsh and unsatisfactory in pumping the quantity of water required.

"There are constantly growing demands for the extension of the high-service to districts now supplied from the low-service, and these demands cannot be complied with except in cases where the now urgent necessity exists, as it is evident from the rate at which the consumption is increasing, that before new high-service works can be built the safe pumping capacity of the present works will be largely exceeded.

"The question of new high-service works has now been before the various Water Boards and the City Council since 1875, and definite action upon it has been postponed from time to time, and temporary expedients have been adopted to increase the capacity of the old works. A further increase in their capacity in the present location is undesirable and impracticable, for reasons which have been given in so many former reports to the Water Board and communications to the City Council that I deem it unnecessary to repeat them.

"The matter is now before the City Council in the form of a communication from the former Water Board, stating the necessity for commencing new works, and asking for an appropriation for that purpose. As new works cannot be built in less than two years, your Board can judge, from the petitions for high-service now before it, and the present condition of the works as to capacity, that the necessity is an urgent one for commencing them at the earliest possible time.

"The necessary legislative authority has been obtained, preliminary plans and estimates have been made, and, if the action of the City Council should be favorable, the work could be commenced without further delay."

CURRENT WORK.

EXTENSION OF THE 48-INCH MAIN.

The general Superintendent reports that, "The laying of the extension of this main in Commonwealth avenue from the intersection of Beacon street with Brighton and Brookline avenues to West Chester Park, together with the laying of the connecting 24-inch and 30-inch mains in West Chester

Park, has not yet been commenced, as a sufficient number of pipes has not yet been delivered.

"The delivery of the pipes is now being made by the contractors, A. H. McNeal & Co., of Burlington, N.J., and the work of laying them will be commenced within a few days.

"The appropriation for this work amounts to \$79,486.78. The pipes will be laid by day's labor, under the immediate supervision of Mr. E. R. Jones, Superintendent of the Eastern Division.

"NEW 20-INCH MAIN, WITH 24-INCH SIPHON, ON WARREN BRIDGE.

"The rebuilding of Warren bridge and its relocation on new lines rendered necessary the laying of a new main across the bridge as relocated. This main is a portion of the line through which East Boston is supplied from the Sudbury and Cochituate Works.

"The appropriation for doing this work was made by the City Council, June 2, 1883, the amount being \$20,000.

"It was impracticable to do certain portions of this work without serious interference with contractors who might obtain the contract for rebuilding the bridge, and these portions were therefore made a part of the rebuilding specifications and contract, and a separate bid required in the proposals. Messrs. Young, Ryan, & Hayes were the successful bidders, and the amount to be paid them for the work to be done for the Water Board is \$8,687.73. These contractors have made good progress on the work; the new siphon box has been completed as far as it can be until it is placed in position for lowering, and the pipes laid in it; the trench for the siphon has been dredged to its proper depth and width, and nearly one-half of the special piles required for the support of the 20-inch main have been driven.

"NEW BOILERS FOR MYSTIC PUMPING-STATION.

"The three new steel boilers, to replace four of the old iron ones which have been condemned at this station, are now being built by Messrs. Kendall & Roberts, of Cambridgeport, they having been the lowest of four bidders. The price to be paid — \$8,242 — is a very low one, considering the class of material and workmanship called for by the contract and specifications.

"The amount appropriated by the City Council for the boilers, and incidental work in connection therewith, was \$15,000. The foundations and changes required in the boiler-room are

not included in the contract for the boilers, and will cost a considerable sum.

"REBUILDING A SECTION OF THE MYSTIC CONDUIT.

"In the annual appropriation made for the Mystic Works, was an item of \$8,000 for rebuilding a section, about 150 feet in length, of the Mystic Conduit, which an examination made last season had shown to be in a dangerous condition.

"The work preliminary to the removal and rebuilding of this section, which consists of laying a 30-inch pipe around the location of the damaged portion of the Conduit, for the purpose of keeping up the supply, is now in progress. The pump and engine to keep the excavations free from water are being placed in position, and a small force is at work on the trench for the pipe.

"The work is to be done by day's labor, under the supervision of the Superintendent of the Mystic Works, Mr. W. H. Brown, in accordance with the plans and directions given him."

INSPECTION AND WASTE.

It is a fact well known to the City Council, that the enormous waste of water constantly taking place in the city has been brought to its attention by the officials of the Water Department every year since 1852. No one thing in connection with the water-service of this city, and, indeed, of all other cities, is so well established as the fact of this inordinate, unceasing, unnecessary waste. It is estimated by competent authorities that at least forty per cent. of the supply is unnecessarily wasted. Mr. Henry M. Wightman, City Engineer, in his report to the Joint Standing Committee on water, under date of April 24th, 1883, referring to the appropriations then under consideration by the committee, said:—

"If such large sums are to be spent in improving the quality of the supply the prevention of waste becomes one of the most important of the recommendations of the Commissioners. It seems absurd to improve the quality of the water, at such great cost, for the purpose of letting ten or fifteen gallons run to waste in water-closets, etc., for every gallon drank or used for cooking and similar domestic purposes."

The committee, in their report of April 30th, 1883, used the following language:—

"They also feel that measures should be immediately taken to reduce consumption. It is in this way only, by

having a large surplus of water, so that any portion of the supply which becomes objectionable may be isolated and kept back, that any immediate relief can be obtained. The supply and demand are at present so nearly balanced that the city may be obliged this summer, as heretofore, to use all the contents of the basins, whatever the quality of the water may be. The Engineer recommends the purchase of 2,000 recording meters, and the attachment of a sufficient number of the Deacon waste-detectors to district the city and supplement the work of the inspectors. The committee agree to this, and also recommend that the inspection be commenced at once, and that the Water Board be authorized to employ such men, not over twenty in number, as waste-inspectors, who shall immediately take the matter in hand and try to produce some effect upon the enormous consumption of water before the warm weather comes upon us."

The approval of the measures recommended by that committee is the most important step that has been taken by the City Government in the history of the water supply to remedy this great evil. The Water Board, fully appreciating the importance of this step, and the necessity for prompt and vigorous action, has already adopted measures to carry these suggestions into effect.

We do not purpose at this time to discuss the question at length, for the reason that the systems established are as yet in partial operation, and a full report cannot be made until later in the year. Under the old system of inspection eleven inspectors were employed in the Cochituate Department and three in the Mystic Department. These officials were attached to the Water Registrar's offices, and their duty was to visit the houses of all water-takers, examine the fixtures with reference to the furnishing of sufficient data for the assessment of the water rates, and, incidentally, to investigate as to leaks and wastage. When it is remembered that there are nearly 80,000 water-takers, and the communities of Somerville, Chelsea, and Everett are included in the supply, it will readily be seen how impossible it was for this small force to effectively perform the work assigned them. The fixtures of the water-takers have not, as a matter of fact, been examined for several years, little or no attention has been given to defects and wastage, and the data furnished for assessment of rates has been largely the result of inquiry rather than examination. It was practically impossible for the Water Registrars, with the limited force at their command, to do the work as thoroughly as it ought to have been done. After several conferences with Mr. W. F. Davis, the Water Reg-

istrar, and Mr. Dexter Brackett, the City Engineer, whose services were made available through the courtesy of Mr. Wightman, a new system was agreed upon, and on July 1st the Division of Inspection and Waste was organized. A printed copy of this organization, with its rules and regulations, accompanies and is intended to form a part of this report. The inspection work was begun July 16th, 1883, and the wisdom of the action of the City Council will be clearly seen by a perusal of the report of the Superintendent of the Division, covering the first forty days' labor. The report reads as follows:—

“ OFFICE OF DIVISION OF INSPECTION AND WASTE,
WATER DEPARTMENT, CITY HALL, BOSTON, August 27th, 1883.

“ WILLIAM A. SIMMONS, ESQ., *Chairman Boston Water Board*, —

“ SIR : — I respectfully present, for the information of the Water Board, the following statement of the progress made by the Division of Inspection and Waste since it began work July 16th, up to, and including, August 25th (inst.).

“ On July 16th the four divisions, consisting of six Inspectors and a Chief Inspector in each, began the house-to-house inspection at South Boston Point, working from thence towards the city proper. When about half of that district had been inspected, in order to give Engineer Brackett an opportunity of recording the flow into the district by the Deacon meters, three of the divisions were withdrawn, and on July 24th were placed in the Somerville District, the inspection of which place they finished August 9th. The three divisions were then sent back to South Boston and worked there until they completed its inspection, August 16th. No. 1 Division still remains at work on the peninsula, completing reëxamination, etc.; but I expect them to be through early this week.

“ On August 17th I placed Divisions 2, 3, and 4, in the following localities, viz.: Division 2, P. D. Dwyer, Chief Inspector, in West Roxbury; Division 3, William P. Carroll, Chief Inspector, in Brighton; Division 4, Daniel A. McCarthy, Chief Inspector, in Dorchester, where they are severally at work at present.

“ The number of houses inspected, for which street reports have been returned to this department for the period mentioned, together with the reports of defective fixtures, and waste, and the notices to repair, etc., have been as follows : —

DIVISION 1.—E. A. NICHOLS, *Chief Inspector.*

INSPECTOR.	No. of Houses Inspected.	No. of Waste Notices Served.	No. of Re-examinations.	No. of Houses Closed, not Inspected.
R. E. Maguire	516	66	62	30
C. F. Sweeney	540	93	76	23
John B. Hassett	541	81	76	9
R. J. Murray	536	59	58	27
J. J. Strange	539	88	85	1
G. E. Raymore and J. F. Daly	482	109	107	34
Total	3,154	496	464	124

DIVISION 2.—P. D. DWYER, *Chief Inspector.*

INSPECTOR.	No. of Houses Inspected.	No. of Waste Notices Served.	No. of Re-examinations.	No. of Houses Closed, not Inspected.
J. J. McNamara	505	30	26	53
J. B. Maguire	581	64	61	87
J. A. Haley	554	82	74	48
Chas. McCarron	396	59	59	30
J. J. Corbett	573	59	46	49
Geo. F. Ross	600	61	53	42
Total	3,209	355	319	309

DIVISION 3.—WILLIAM P. CARROLL, *Chief Inspector.*

INSPECTOR.	No. of Houses Inspected.	No. of Waste Notices Served.	No. of Re-examinations.	No. of Houses Closed, not Inspected.
L. J. Furlong	65	52	47	27
Michael Edmonds	564	68	44	18
John F. Desmond	538	41	38	33
Edward Ready	486	81	56	33
J. J. McAuliffe	552	75	65	23
Jos. H. Toland	531	36	26	30
Total	3,236	353	276	164

DIVISION 4.—DANIEL A. McCARTHY, *Chief Inspector.*

INSPECTORS.	No. of Houses Inspected.	No. of Waste Notices Served.	No. of Re-examinations.	No. of Houses Closed, not Inspected.
Wm. F. Butler	481	73	300	32
M. F. Cassidy	498	62		22
John F. Cullen	501	49		31
William Kilduff	496	57		29
Thos. F. Murray	440	49		23
John J. Quigley	438	77		56
	2,854	367	300	193

SUMMARY.

Division 1	3,154	496	464	124
“ 2	3,209	355	319	309
“ 3	3,236	353	276	164
“ 4	2,854	367	300	193
Grand Total	12,453	1,571	1,359	790

“The above figures give for each of the 36 days’ inspection :

“Reports of Inspector each day, 346.

“Average number for each Inspector, 14½.

“Total average number of house inspections by each Inspector, 519.

“Besides the foregoing there were daily received from the Inspectors an average of 43½ waste reports of defective fixtures, and a like number of notices to repair issued from this department.

“The reëxamination of premises that had been notified to repair amounted to a daily average of 38.

“As the summary indicates, there were found, in the districts covered by the 12,453 inspections, 790 houses or premises that were closed up and could not be entered by the Inspectors, the people in most cases being on summer vacations.

“In about 13 per cent. of the premises inspected great waste of water was found, and promptly checked. In a large number of places the waste was found running full force from the supply-pipes into the waste-pipes. This enormous waste was constantly occurring, and in many places was reported as running full head from one to seven years.

“The following few extracts from some of the waste reports will give a general idea of hundreds of the same kind : —

"43 *Bromley park*. — 'Water running in hopper-closet for three years.'

"50, 52, 54, 56, and 58 *Bickford street*. — 'The drainage is bad, and the water is kept running to "sweeten the drainage and keep down the smell."' "

"281, 283, 287 and 289 *West Third street, So. Boston*. — 'Water-closets constantly running.'

"*Willow court, Ward 20*. — 'Running a large stream for eleven months.'

"*Marcella street, Highlands*. — 'The tanks and hopper-closets are in a shocking condition — they have been running for years.'

"5 *Highland park, Highlands*. — 'Pan closet runs full head when handle lifted, and cannot be stopped unless you get up to the tank and force it down.'

"523 *East Fourth street, South Boston*. — 'Water running from tank full force for four years.'

"*East Fourth street, South Boston*. — 'Great waste going on for years, by tank being out of order.'

"193 *D street, South Boston*. — 'The waste in this house is very large, more water being lost in an hour than would legitimately be used in a week.'

"3114 *Washington street*. — 'The water flowing continuously, caused by the handle of water-closet being tied up with cord so that it cannot shut; also great waste upstairs, and in basement closets.'

"13 *Weld avenue, West Roxbury*. — 'Faucets in set tubs leaking for over two years.'

"14 *Jenkins street, Dorchester*. — 'Faucets leaking for ten months.'

"And so on out of the 1,571 reports of waste and defective fixtures, hundreds of cases the same as the foregoing are recited.

"The total number of persons fined for neglecting to have their water-fixtures repaired, after getting due notice, was 72. Of this number 51 fines were remitted, on the persons giving sufficient reasons why they had not complied with the notice, and afterwards complying with the ordinance.

"The amount of fines received for defective fixtures and the illegal use of hand hose was \$85. The water was shut off from 16 premises for non-payment of fines and failing to repair, and was let on again to 14.

"I desire to mention that during the inspection I have received no complaints from citizens regarding discourtesy or incompetency on the part of the Inspectors; and I have ample reason to know that they are both zealous and punctual in the discharge of the duties entrusted to them.

"During the period named, a large number of persons were found using hose for which they paid no license, and the regular charge has in most instances been collected from them.

"Very respectfully,

"D. B. CASHMAN,

"*Superintendent.*"

The above report speaks for itself, and sufficiently indicates, perhaps, the policy of the Board, which is to place all of the Inspectors in one locality in the outset, for the purpose of ascertaining the amount of waste, the inspection being made in connection with the Deacon waste-water detectors, as will be explained hereafter.

WASTE-WATER DETECTORS.

By a vote of the former Water Board, passed on February 27th, 1883, the Deacon waste-detectors, which had been used in Charlestown, were, as soon as the season would permit, placed in East Boston. Early in April these machines were set in operation, under the supervision of Mr. Dexter Brackett, Assistant Engineer, and, aided by a house to house inspection, very satisfactory results have been reached. The daily average consumption from the high-service works (which supply about three-fourths of the population of East Boston) was 276,830 gallons during the month of July, — a reduction of 152,640 gallons, or 36 per cent. less than the corresponding month of 1882. The work in East Boston is not yet completed, and figures for the whole district cannot be given at this writing.

Immediately after the appropriation of \$25,000 for waste-water-detectors was made the Board determined to utilize the Deacon and similar systems as far as possible, and early requested the City Engineer to assign Mr. Dexter Brackett to this branch of the service.

In accordance with the recommendations of Mr. Brackett, nine additional Deacon meters have been purchased, an order being cabled to Liverpool for them in July, and they have since been received. Mr. Brackett, who has entire charge of this work, is setting these meters in the city proper, and has already used several of them in conjunction with the Division of Inspection and Waste. He is intending from time to time to use others in connection with that division, so as to obtain the best possible results. In order to reach the same beneficial results which obtain in other cities where the Deacon system has been adopted, it is very essential that

the premises of each water-taker should be supplied with a service stopcock either in the street or sidewalk. Only about one-tenth of the premises of the water-takers in the Cochituate Department are now supplied with these stopcocks; hence, if this system is to be permanently adopted by the city it will be necessary to consider this essential requirement. In the Mystic Department, however, this difficulty does not exist, as most of the premises have a stopcock connected with them. Prior to the appropriation of June, 1883, the Board was instructed to test the waste-water detector invented by B. E. Church, Engineer of the New York Water Works.

Before entering upon this experiment the subsequent appropriation was made, and the Board concluded to test the Church Detector upon a larger scale; accordingly a number of the Church instruments have been ordered, several different localities selected, the experiments being made under the direction of Mr. Brackett, who has charge of the waste-detector service.

It is expected that substantial results from this service, as well as from the Division of Inspection and Waste, will be reached before the close of the year.

METERS.

The City Council, in June last, appropriated \$50,000 for the purchase of Recording Water Meters, in accordance with the recommendation of the Engineer of the Board to the Joint Standing Committee on Water. An erroneous impression seems to prevail in the community that this was an initial purchase of meters, looking to the establishment of a measurement system, while, as a matter of fact, there were at the time of the appropriation upwards of 2,500 meters of various patterns in daily use, and more than one-third of the total water revenue of last year was derived from the sale of water measured through meters.

Prior to the adoption of the present system the meters in the Cochituate Department were cared for in part by the Water Registrar, and in part by the Superintendent of the Eastern Division. In the Mystic Department they were in charge of the Superintendent and the Water Registrar.

As the action of the City Council directed an increase of this service nearly if not quite 100 per cent., the Water Board determined, before purchasing additional meters, to organize a "Meter Division," which should assume the entire charge and conduct of the meter service of the city. As this service already represented one-third of the total income of

the Water Department, the large addition rendered it imperatively necessary, in the judgment of the Board, that there should be an efficient reorganization. The Board well understood that it was instructed to purchase Recording Meters to the extent of \$50,000, and that it was not required to make tests or experiments. The members of the Board, however, were unanimously of the opinion that, before acting upon a matter involving so large an outlay, and practically the endorsement and approval of the measurement system, they ought to become fully satisfied that the measures adopted by them would subserve the best interests of the city.

We were not called upon to inaugurate a system of water measurement, for this has been one of the principal means of collecting the water rates for many years, but simply required to bring together and unite in one symmetrical whole a branch of the service which had been partially experimental and somewhat scattered, and which, as it was to be doubled in volume and importance, needed to be harmonized and established upon a permanent and systematic basis.

This has been accomplished in the organization of the Meter Division. Mr. Hiram Cutts, the former Superintendent of the Mystic Department, and connected with the water service of the city for the last fourteen years, has been appointed Superintendent of the Division. He was recommended by various members of your honorable body, has had large experience in the water-service, and, in the judgment of the Board, is a thoroughly honest, conscientious, and capable official, as well as a practical mechanic, and entirely familiar from long experience with the construction and use of meters. The Board in the outset advised with Mr. O'Brien, the Chairman of the Board of Aldermen, and of the Water Committee, upon all these matters, and invited him to act with the Board throughout the whole proceedings. The examinations were made by Superintendent Cutts, under the immediate supervision of the Board and Mr. O'Brien, and when the report was received its conclusions were unanimously approved and adopted by them. It may be well to add that five of the meters referred to in the report of Mr. Cutts have been tested several times before with results substantially as at present; that two of them have been tested with more favorable results than the five just mentioned, but that in none of these were the tests applied as to obstruction, as in the present instance. Of the four remaining meters none had been previously tested. The meter adopted by the Board is one owned by the Tremont Meter Company, known as the Sweeney Meter, and is, so we are informed, the oldest patented meter. Before the adop-

tion of the meter of this company, and in order to fully protect the interests of the city, a bond was exacted from the company in the sum of \$20,000, the condition of which is that : —

“If the said Tremont Meter Company shall furnish within a reasonable time all the meters ordered by said Water Board, and if the meters so furnished for use in measuring said water shall each be good and accurate, and equal in all respects to the one examined and tested by said Water Board, and shall each accurately measure and register the quantity of water passing through it for twelve months next after its application to the water service of said city, unless injured by frost or accident; and if said Tremont Meter Company shall at once replace by a perfect meter any meter so furnished by it, which fails to so measure and register said water; and shall indemnify and save harmless said city from and defend it against any and all actions, legal proceedings, and claims for the infringement of any rights under any letters-patent, then this obligation shall be null and void; otherwise shall be and remain in full force and virtue.”

The sureties on the bond are Frederick Curtis, Patent Solicitor; Hon. Moody Merrill, President Highland Railroad; John Fottler, Jr., merchant; Francis H. Raymond, merchant.

These gentlemen, in connection with Mr. B. F. Nourse, a well-known Boston merchant, and a large stockholder in the company, appeared before the Board and gave satisfactory assurances of their ability to comply with its requirements. The Board has ordered of the Tremont Company up to this date 1,577 meters of various sizes, at a cost of \$34,155.50. The report of Mr. Cutts, though very lengthy, we believe of sufficient importance to have printed entire, and it is presented at the end of this report. It is not deemed necessary to publish the entire correspondence as this is on file and easily accessible.

WATER-RATES.

Inasmuch as the returns from the Division of Inspection and Waste will not be completed for several months, the Board, after conference with the Water Registrar, has decided to make no change in the water-rates, except so far as may become necessary in changing from schedule to measurement.

The following tables, prepared by W. F. Davis, the Water Registrar, indicate perhaps the average difference in revenue between schedule and measurement rates : —

RESULT FROM METERS APPLIED TO 316 BUSINESS PREMISES IN 1881.

Meters Required.	Schedule rates per annum.	Amounts collected by Meter Measurement.				
		1st Quarter.	2d Quarter.	3d Quarter.	4th Quarter.	Total.
371— $\frac{5}{8}$ in.	\$24,551.30	\$8,936.51	\$7,222.74	\$6,198.42	\$5,986.32	\$28,320.99
3— $\frac{3}{4}$ "						
48—1 "						
2—2 "						

RESULTS FROM METERS APPLIED TO A VARIETY OF PREMISES IN 1882.

Meters Required.	Schedule rates per annum.	Amounts collected by Meter Measurement.				
		1st Quarter.	2d Quarter.	3d Quarter.	4th Quarter.	Total.
448— $\frac{5}{8}$ in.	\$22,588.37	\$10,782.00	\$9,674.90			Based upon six months' average.
28— $\frac{3}{4}$ "						\$40,913 80
60—1 "						
2—1 $\frac{1}{2}$ "						
2—2 "						

One other topic which has frequently been referred to of late in connection with the measurement system is, that it might prove injurious from a sanitary point of view. In reply to this it need only be said that the purpose of measurement is not to restrict the legitimate use, but to prevent the waste of water, and to ensure its proper use. Nothing stronger can be quoted on the subject, probably, than the language of Joseph P. Davis, City Engineer, in his report of 1879, when he said:—

"The statement which is frequently made, that on account of sanitary considerations the use of water should be unrestricted, may, perhaps, when properly qualified, be defended; but it is generally set forward to defeat any attempt to prevent leakage and unlimited waste. These result largely from the use of improper fixtures and bad plumbing. Water-closets that require a constantly running stream of water to make them even tolerable, and pipes that render the soil and walls damp by leaking and sweating, so far from

promoting the public health are, on the contrary, among the enemies against which it has to contend."

In Providence, where the measurement system prevails to a greater extent than in any other city in the country, and which has proportionately as large manufacturing interests as Boston, the daily *per capita* consumption is but one-third of our own city.

In conclusion, we desire to call attention to the importance and magnitude of the various works projected and in process of construction at Ashland, Basins 2 and 3, and Farm pond, with especial reference to the value of the services of the Engineer of the Board. If the Water Department were an independent corporation, and required to pay for engineering work and supervision, such as is rendered by the present Engineer, it would cost unquestionably a larger sum than his salary as City Engineer. We are constantly calling upon him as Engineer of the Board, and he is required to furnish all the plans and specifications for the department, and is responsible for their faithful execution. We believe, as a matter of justice, that he should receive a compensation of \$1,500 per year for his services as Engineer of the Boston Water Board, and we desire to pay him this salary out of the different appropriations made for improvements at the basins and Farm pond (and not out of the annual income), while these works are in progress. The Board is fully empowered to do this under Section 4, Chapter 27 of the Ordinances; but as the salary of the City Engineer is fixed by your honorable body, we deemed it a matter of duty to first bring the matter to your attention.

Mr. Wightman has neither sought nor asked this action at our hands. It is a voluntary recognition of the labors of an official whose valuable services to this department entitle him to this consideration.

W. A. SIMMONS,
GEO. M. HOBBS,
J. G. BLAKE,

Boston Water Board.

REPORT OF SUPERINTENDENT OF METER DIVISION ON EXPERIMENTS AND TESTING RECORDING METERS.

METER DIVISION, BOSTON WATER WORKS,

BOSTON, Aug. 15th, 1883.

TO MESSRS. WILLIAM A. SIMMONS, GEORGE M. HOBBS,
JOHN G. BLAKE, HUGH O'BRIEN, *Special Committee on
Testing Recording Meters*:—

GENTLEMEN,—On July 6th this department received a communication from the Boston Water Board, dated July 5th, calling the attention of the Superintendent of the Meter Division to the following resolutions as adopted by the Board of that date, viz.:—

1st. "That a testing of recording meters shall be immediately begun, under the direction of the Superintendent of the Meter Division, and the supervision of the whole Board, and that the Chairman of the Water Committee be invited to act with the Board in the tests and examinations to be made."

2d. "That the tests and examinations shall be made with reference to *accurate measurement of water, simplicity of mechanism, liability to obstruction, compactness, weight, durability, material, general excellence* and price, so that the result will show beyond all question which meter is the best to be adopted as the standard meter of the city."

3d. "The tests shall represent the maximum strain to which meters will be subject under the Cochituate, Sudbury-river, and Mystic systems. And the report must not only show the results, as above indicated, but give an accurate analytical description of each meter, with the opinion of the Superintendent thereon. The representative of each meter will be required to forward such a description at the time of the tests, this to be included in the Superintendent's report."

4th. "That no meters shall be accepted for testing, unless known in the market as standard instruments, or represented by corporations or individuals who are prepared to give to the Board a satisfactory guaranty of their financial responsibility, and a further guaranty of their ability to furnish all the meters required; and when furnished they shall be up to the tests."

In accordance with these resolutions and instructions I

have performed the duty therein specified, and beg leave to offer the following report:—

With authority, as per letter of July 10th from the Boston Water Board, I have purchased of the manufacturers, or their representatives, for the purpose of conducting these experiments, one $\frac{3}{4}$ -inch meter, each, of the following named: Worthington, Ball & Fitz, or Worthington improved, Equitable, Standard, Boston, Tremont, Balance Valve, and Continental. These, together with the Crown, Undine, and Spooner Diaphragm, taken from stock for this purpose, and making eleven in number, comprise the entire list of all meters of any practical value, to my knowledge, now in this market. The Standard and Balance Valve, having no $\frac{3}{4}$ -inch, furnished $\frac{5}{8}$ -inch, rather than not be represented.

These tests were conducted strictly according to the instructions, as laid down to me in the communications from the Boston Water Board, under date of July 5th.

The experiments commenced July 19th at the workshop of the Mystic Department, in the Charlestown District; the members of the Boston Water Board, together with the Chairman of the Water Committee, being present at the time, and at various times during the tests, which continued day by day to Aug. 10th, at which time they were completed.

The manner of conducting these tests was as follows: each meter was subjected to the same conditions and duties in every respect, without the slightest variation whatever. The first test for accuracy being four different runs, of 10 cubic feet each—the first a $\frac{3}{4}$ -inch delivery, this being the full capacity of each (Standard and Balance Valve excepted); the second, a run of $\frac{3}{8}$ -inch; the third, a $\frac{1}{4}$ -inch; and the fourth a $\frac{1}{8}$ -inch delivery.

These were given with 48 lbs. pressure to the square inch. An additional run of $\frac{1}{32}$ -inch delivery was made, to show the sensibility of each meter,—this being the smallest quantity a meter is supposed to work correctly.

These five tests were applied to each meter in succession, and the retardation of each was also noted, reference to which will be made hereafter.

It is perhaps proper to say here, that no one meter was confined to a single run; but was in some cases tested two, three, and four times, in order that the results might be unquestionably accurate and satisfactory.

After completing this first experiment all the meters were placed side by side, and applied to their full capacity, viz., $\frac{3}{4}$ -inch supply and $\frac{3}{4}$ -inch delivery, at an average pressure of 51 lbs. per square inch. This test was continued 14 days, or 336 consecutive hours, exact time, and was conducted for the

purpose of demonstrating the effect of wear, etc., etc., comparatively, upon each. This duty is not to be considered a severe one, as it is by no means beyond the maximum condition to which meters are liable to be subjected in our water supply.

The results of this trial will be made apparent hereafter, and may be considered as Test No. 2.

Tests Nos. 1 and 2 were made with reference to accurate measurement, sensibility and friction, endurance, and wear and tear. The third, or last running test, which consisted of a repetition of the first, was to ascertain the effect of the 14 days' run upon the different meters, and a comparison with Test No. 1 will give conclusively the effect of wear and tear on each meter during the 336 hours of service in Test No. 2.

These running tests I have thought best, for convenience of comparison, etc., to report in tabular form, designated as Tests Nos. 1, 2, and 3, and to these tables I respectfully call the attention of the gentlemen of the committee.

By reference to Table No. 1, under head of $\frac{3}{4}$ -inch outlet, you will observe that the Continental, Tremont, Spooner, and Undine were 1 per cent. short, while the Crown was 2 per cent. over, the Boston 2 per cent. short, the Standard 3 per cent. short, and the Worthington, Ball & Fitz, and Equitable, each 4 per cent. short; the Balance Valve was 8 per cent. short; thus making the Continental, Tremont, Spooner, and Undine rate as No. 1; Boston and Crown, No. 2; Standard, No. 3; Worthington, Ball & Fitz, and Equitable, No. 4, and Balance Valve, No. 5.

Now, if we proceed and examine the same table under the head of $\frac{3}{8}$ -inch outlet, we shall find the Tremont as No. 1, Worthington, Continental, and Undine as No. 2; Spooner, Crown, and Standard, No. 3; Ball & Fitz, Equitable, and Boston, No. 4, and Balance Valve No. 5.

Again, under $\frac{1}{4}$ -inch outlet, the Tremont and Standard are No. 1, Continental and Undine are No. 2, Ball & Fitz, Equitable, and Crown No. 3, Worthington, Spooner, and Boston, No. 4, while the Balance Valve remains No. 5.

Still further, under $\frac{1}{8}$ -inch outlet, the Ball & Fitz takes No. 1; while Tremont, Undine, and Balance Valve come in No. 2; the Continental, Standard, Crown, and Spooner, become No. 3; Equitable, No. 4; Worthington and Boston, No. 5. Shown in a more condensed form, the results are as follows:—

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.
$\frac{1}{4}$ -inch outlet {	Tremont.	Boston.	Standard.	Worthington.	Balance Valve.
	Spooner.	Crown.		Ball & Fitz.	
	Continental.			Equitable.	
$\frac{3}{8}$ -inch outlet {	Tremont.	Worthington.	Spooner.	Ball & Fitz.	Balance Valve.
		Continental.	Crown.	Equitable.	
		Undine.	Standard.	Boston.	
$\frac{1}{2}$ -inch outlet {	Tremont.	Continental.	Ball & Fitz.	Worthington.	Balance Valve.
	Standard.	Undine.	Equitable.	Spooner.	
			Crown.	Boston.	
$\frac{3}{4}$ -inch outlet {	Ball & Fitz.	Tremont.	Continental.	Equitable.	
		Undine.	Standard.		Worthington.
		Balance Valve.	Crown.		Boston.
			Spooner.		

The preceding figures and accompanying table show the various changes under the different conditions imposed — for instance, the Balance Valve in the first three tests was much behind in the score, while in the last run it advanced to second rate; and the Worthington, rating No. 2 in the second test, fell back to No. 5 in the last.

These extreme changes are not favorable to the measuring qualities of a meter.

The superior instrument is the one which works most uniformly under all conditions.

It may not, for want of proper adjustment, register the correct quantity delivered; but if such instrument continues to work uniformly in proportion under different conditions it is largely in its favor.

Test No. 2 was conducted solely to demonstrate the wear and tear, strength and durability, of each. In this service the Continental worked twelve hours and gave out, becoming totally disabled by breaking the cams in connection with the valve crank.

The Boston gave considerable trouble, having stopped four different times; three of these stops were occasioned by the nut holding the piston-head in position becoming loose, which was finally remedied by riveting the parts together. On Monday, July 30th, after nine days' service, it stopped and refused to do further duty. This stoppage was occasioned by the rubber bumper attached to the cylinder-head giving

out (completely ground up), thereby extending the stroke, and disarranging the valve to such an extent that further experiments with this meter were useless.

The Spooner performed this duty until Sunday, August 5th, making thirteen days' service, when this also gave out, entirely disabled by breaking the rubber known as the apex, in connection with the registering device.

These accidents or mishaps left the following meters to finish the experiments: Worthington, Ball & Fitz, Equitable, Standard, Tremont, Balance Valve, Crown and Undine; and these only appear in the final test.

Test No. 3. This last experiment is a repetition of No. 1, and in comparing the two the effects of wear and tear of the fourteen days' continuous service are made apparent. Take first the results of the $\frac{3}{4}$ -inch delivery in each table.

	Test No. 1.	Test No. 3.	Error.
Worthington	4 per cent. short.	9 per cent. short.	5 per cent.
Ball & Fitz	4 " "	4 " "	0 "
Equitable	4 " "	23 " "	19 "
Crown	2 " over.	0 " "	2 "
Standard	3 " short.	18 " "	15 "
Tremont	1 " "	1 " "	0 "
Balance Valve	8 " "	23 " "	15 "
Undine	1 " "	1 " "	0 "

$\frac{3}{8}$ -INCH DELIVERY.

	Test No. 1.	Test No. 2.	Error.
Worthington	1 per cent. short.	5 per cent. short.	4 per cent.
Ball & Fitz	3 " "	3 " "	0 "
Equitable	3 " "	17 " "	14 "
Crown	2 " over.	0 " "	2 "
Standard	2 " short.	14 " "	12 "
Tremont	0 " "	0 " "	0 "
Balance Valve	8 " "	23 " "	15 "
Undine	1 " over.	2 " "	1 "

$\frac{1}{4}$ -INCH DELIVERY.

	Test No. 1.	Test No. 3.	Error.
Worthington	3 per cent. over.	1 per cent. short.	4 per cent.
Ball & Fitz	2 " short.	2 " "	0 "
Equitable	2 " "	14 " "	12 "
Crown	1 " over.	1 " over.	0 "
Standard	0 " short.	100 " short.	100 "
Tremont	0 " "	0 " "	0 "
Balance Valve	4 " "	20 " "	16 "
Undine	1 " "	2 " over.	3 "

 $\frac{1}{8}$ -INCH DELIVERY.

	Test No. 1.	Test No. 3.	Error.
Worthington	7 per cent. over.	3 per cent. over.	4 per cent.
Ball & Fitz	0 " "	0 " "	0 "
Equitable	3 " short.	66 " short.	63 "
Crown	2 " over.	2 " over.	0 "
Standard	2 " short.	100 " short.	98 "
Tremont	1 " "	1 " "	0 "
Balance Valve	1 " "	23 " "	22 "
Undine	1 " over.	100 " "	101 "

These figures show that the Tremont and Ball & Fitz are the least affected in their measuring qualities by wear, while the Equitable and Standard are affected the most.

The sensitiveness of each meter is shown in the test of $\frac{1}{32}$ inch run; in the first the Worthington and Boston show errors of 100 per cent.; Balance Valve and Continental 30 and 20 per cent. respectively; Ball & Fitz and Equitable, 10 per cent.; the Tremont 5 per cent.; and the second run of $\frac{1}{32}$ inch, the Worthington, Equitable, Standard, and Balance Valve show 100 per cent. error; Ball & Fitz and Crown, 30 per cent. and 20 per cent. respectively; the Tremont 10 per cent., which may be called a very good showing for the Tremont.

The next in order comes the test for liability to obstructions. In making these experiments I have used such material as, in my opinion, would be likely to come in contact with the meters while doing duty.

No meter made is proof against this particular test if judgment and reason are ignored. Consequently, in conducting this test, I have made use of sand, gravel, straw, shells, eel-grass, shreds of cotton-waste, wads of oakum, dried leaves, and moss, — these being the obstructive material generally found in the distribution, all of which were tried upon each meter.

The Worthington, Ball & Fitz, Tremont, and Equitable passed all this matter and discharged the same into the tanks completely ground up, with little or no effect upon their working. The Balance Valve and Standard each gave a few spasmodic struggles and stopped with the oakum and waste, while they both passed successfully the other material, with apparently no effect upon either.

Both the Crown and Undine were seriously affected in this test; each in turn was brought to a dead stop as each article of material was inserted in the supply-pipe; and both instruments refused to work in the application of each and all of this material.

These two last-named meters are also sensibly affected in measuring qualities by the temperature, while all the others are not further than the expansion and contraction of the metal of which they are composed, and then not to any perceptible degree.

Take, for instance, the Crown or Undine meter; neither would be of any utility placed near a steam boiler.

The rubber parts in each are so susceptible to the action of warm water as to render them entirely useless. This fact has been practically demonstrated, and accompanying this report is a piston from a $\frac{3}{4}$ -inch Crown meter, showing this effect.

The descriptive lists of the different meters, as furnished by the representatives of each, seem to me in some instances rather obscure, and it is not an easy task to give an analytical description of each meter to the committee, especially to do so in plain and comprehensive terms. Indeed, the difficulty is not only realized by myself, but has been offered by parties furnishing the meters as an excuse for not fully complying with the requirements of your instructions in this behalf.

Worthington Meter, manufactured by H. R. Worthington Co., New York City.

This meter, heretofore and until a recent period the standard meter, is a duplex cylinder and piston. It is made of composition, with iron ends, and has 5 moving parts, viz., 2 hollow pistons, 2 sliding D valves, and arm attached to ratchet operating the spindle attached to register.

The cylinders are placed parallel, 4 inches in diameter, the pistons traverse the same, with $2\frac{1}{2}$ inch stroke, directly under each piston. In the centre is placed a sliding D valve governing three passages each, two operating and one discharging passage, which are operated by the piston, by means of a knob in contact with recess in piston; and whatever position these pistons are in, the valves are properly adjusted, and receive and discharge alternately. In the centre of the body of the meter is a reception-chamber. Water passing into said chamber is admitted, by position of valves, to pass through water channel to end of cylinder, and acting on the plunge forces it back to the other end of the cylinder, and at same time reversing the valve, shutting off the pressure-valve, and opening the discharge-valve; each piston operating the valve that applies to its neighbor, consequently they are travelling alternately; while one piston is receiving its force in one end it is forcing the discharge at the other, and by means of manipulation of these valves discharges through the water-channels in the base, there being separate channels conveying at the outlet-connections.

The registering is accomplished by the swinging arm attached to piston by means of same recess as the valves, this recess extending entirely around the piston. This arm swings back and forth with each stroke of piston, and, by means of ratchet at the pivot, turns the spindle to which is attached the clock, and this spindle is made secure from leakage by the application of a rubber packing. This has proved very objectionable, the rubber having a tendency to gum and stick, causing the spindle to refuse the revolving motion required of it, thereby destroying the registering of the instrument, and deranging the parts. This has been a source of annoyance, and no small item of expense, in the maintenance of this meter. It is safe to say, that unless this trouble is guarded against with watchful care, fully 25 per cent. of these meters will be found disarranged from this cause alone each month. This meter occupies a space of 16 by 12 inches square; the weight is 106 pounds, and very strong in its external make-up. If more attention was given to the lasting qualities of some internal parts, great improvements would be accomplished.

It is composed of good material, and is of fair workmanship, and may be considered a good machine in its general make-up, and capable of good service. The retarding is 25 pounds, discharging 1,600 gallons per hour.

Ball & Fitz, improved, manufactured by Union Water Meter Co., Worcester.

This meter is almost a duplicate of the Worthington, and by the makers called the Worthington improved. This improvement consists in the changing and enlarging of the water channels and parts by which more capacity is claimed (see Table No. 1, $\frac{3}{4}$ -inch delivery) ; 3 seconds' time is gained over the Worthington in the delivery of 10 cubic feet.

The working parts and operation are identical with the Worthington, except the rubber packing of the spindle, which in this case is abandoned, and a suitable stuffing-box substituted.

This machine occupies a space $10\frac{1}{2}$ by $11\frac{1}{2}$ inches square, weight 81 lbs. ; very strong throughout ; is composed of good material, with fair, common workmanship in its internal parts, and rough externally ; like all cylinder machines can be adjusted easily by extending or shortening its stroke ; is capable of good service and endurance.

Equitable, manufactured by Equitable Meter Co., 34 Beach St., Boston.

This is a new meter, recently placed in the market, and is of the cylinder and piston type, being two cylinders placed crosswise, in form similar to the Greek cross.

The pistons are hollow, and divided by partition crosswise, forming two chambers ; no valves are used, but instead are ports placed in the pistons, of the proper size to conform to the water channels.

At certain position of the piston these ports are brought in contact with these channels, allowing the water to pass through ; these pistons take the required position alternately ; thus the water is constantly passing either in one or the other of these ports to the force chambers, while at the same time at the other end it is, by the same channels, reversed and forced to the discharge pipe. Like all meters of this type, one piston furnishes the water through valves or ports operating its neighbor ; consequently the constant motion, alternately, of the two pistons, is receiving water at the force chamber at one end, and discharging it by force at the opposite end.

The inventor has, in this case, ignored the common practice of connecting the parts with bolts and nuts, and has adopted one entirely original, viz., screwing the parts together. This to my mind is an objectionable feature, requiring special tools for that purpose, while other and seri-

ous objections are apparent, one of which is the difficulty of separating such joints after being subject to the corrosion of two or three years' constant service and exposure.

Many oversights are manifest in its general make-up relative to convenience, etc., etc.

Its weight is 43 lbs., composed of 5 working parts, piston 3 inches diameter, with $2\frac{1}{2}$ -inch stroke, made of composition, with iron ends or caps; all its parts are strong, performs its duty laboriously with considerable noise and thumping.

Retardation 29 lbs.; delivery, 1,600 gallons per hour.

Standard, Standard Meter Co., 7 Exchange Place.

This is a single cylinder air-piston style, and is made of composition, with iron ends; material inferior and slight in construction, giving the general impression of a cheap article.

Cylinder 4-inch diameter, with $2\frac{1}{2}$ -inch stroke; registering attachment by arm and ratchet, same as the Worthington; principal operation and water channels very similar.

The difference consists in one being single, while the other is double cylinder and piston, with the addition of a supplementary valve attached to the standard.

This valve, it is claimed, insures a positive movement, — a claim that is not sustained, and one that practical experience will not support. This style of meter is practically the same as the cylinder and piston of the steam-engine, and while the steam-engine employs the balance-wheel to keep the momentum while passing the centre (until one valve closes and the other opens), the Standard meter employs the supplementary valve for the same purpose, and the difficulty in the meter arrangement is, that the stroke of the piston is not a fixed one, and any change in the stroke of the piston makes a corresponding change in this valve, and consequently a disarrangement and uncertainty in its motion. Works laboriously, attended with considerable thumping, and irregular in the discharge of water. Its weight is 28 pounds, occupying a space of 11 by 9 inches. Retardation, 42 pounds, in delivery 1,200 gallons per hour.

Tremont, Tremont Meter Co., Milk Street, Boston.

The Tremont is single cylinder and double piston, one piston working within the other, with main and auxiliary valves. These valves are attached to the inner piston, and, as an inside monitor, guide and control the whole movement.

Totally different in application from any other machine, this receives the water in the centre of cylinder, and by means of a port in the piston, which is constantly in contact with the inlet, passes to inside of first piston and acts on the inner one, and by means of valves the two are operated in connection; ports in the end of first piston conduct the water to the force-chambers alternately as governed by the action of the inner piston. In the performance of its duties there are no indications of exertion or hard labor, but, on the contrary, it accomplishes its work with perfect ease.

When in full operation its action is like the natural breathing of a healthy person.

The registering device is very simple, yet very accurate. The motion of the piston is transmitted directly, by means of a lever and gear, to the clock-work, and is a piece of skilful work worthy of notice.

It is composed of 4 working parts, viz., outer and inner piston, main and inner valves. Material good, and workmanship of the best order; altogether a very superior machine. Weight, 26 pounds, occupying a space of $6\frac{1}{2}$ by $7\frac{1}{2}$ inches. Retardation, 21 pounds, discharging 1,600 gallons per hour.

Crown.

The Crown is commonly termed a rotary meter, deriving its name from the motion in its action. It consists of a round chamber, with a series of recesses of irregular shape around the sides, the boundary of which is marked by projecting points, which may be numbered as 1, 2, 3, etc., etc.

A piston of hard rubber, formed with segments in shape to exactly fit the recess in the chamber or body of the meter, there being, however, one less segment in number on the piston than recess in the chamber.

This piston is the only moving part; a series of inlet ports are placed in the bottom of the chamber in circular form, in number to correspond with the recesses of the chamber, and in whatever position the piston is placed one of these inlet ports is arranged to admit water to the open space caused by the absence of one segment less in number on the piston than recesses in chamber. The action of the water causes the piston to revolve, and, turning upon the projecting point No. 1, throws it with a rocking movement into the next recess, and by that movement closing the inlet-valve and opening the next, which operating on the next space left open gives the piston another move around projection No. 2, and so continues revolving around the chamber.

A brass pin secure in the centre of piston describes a

circle in the course of the piston. A pivoted lever in contact with this pin operates the clock.

This may be considered a very simple machine, with evidence of ingenuity in its general make-up, and possessing very excellent measuring qualities. It does the work easily and satisfactorily, and in so far is a superior article. But in another point of qualification it is sadly deficient, and that defect is one applicable to all meters of this style of make. I allude to the test of obstruction. In applying the obstruction test to this meter it became evident that no foreign substance otherwise than solutions could pass through; the smallest grains of sand were as effectual to stop it as large pebbles, while steam or hot water not only stops, but damages the piston, rendering it useless. Accompanying this report I have taken the liberty to present one so affected.

While it may be admitted as a favorite meter, with a well-earned reputation, I consider the defects pointed out to be vital ones.

Made of composition, good material, and excellent workmanship.

Weight, 28 lbs., occupying a space of 9 by 9 inches. Retardation, 25 lbs., discharging 1,600 gallons per hour.

Undine.

The Undine is the smallest in size of any heretofore made, is of composition throughout, excepting the piston, which is of hard rubber. This, too, is a rotary meter, and in shape circular, having a round chamber with faced walls, and a round port firmly attached within the chamber.

The piston is oval, and fitted to revolve about this post and at the same time has a sliding motion caused by the oval shape. The outer sides of this piston are fitted, and always follow the circular wall of the chamber, thereby offering the proper resistance to the flow of water.

Crosswise the top of this piston is a bar and pin operating exactly like the Crown for a registering device.

This port is placed near one side of the chamber and on the right of the induct passage; this compels the piston to always present an unequal portion of its surface to the pressure of water. The water enters at the left, through openings in the bottom and top, and passes out through holes similar at the right. This meter, like the Crown, has but one working part, viz., the piston, and, like the Crown, is subject to the same trouble with respect to obstructions.

Composed of good material, workmanship fair in its general make-up; weight, 15 lbs., occupying a space of 8 by

8 inches, with a retardation of 18 lbs. ; delivery, 1,600 gallons per hour.

*The Balance Valve, made by Balance Valve Meter Co.,
242 Washington St., Boston,*

Is a single piston, oval in its external shape, and composed of three moving parts, viz., piston, D valve, and supplementary valve.

The piston consists of two discs connected with horizontal bars, and is operated by means of valves. The cylinder is simply two rings or bushings, of sufficient length to accommodate the stroke of piston ; the action of water on piston is similar to other meters. The space below the cylinder forms a half round chamber, to which is fitted the Balance Valve, as here termed. This contains all the valve movement of the machine, with grooves and recesses cut on all sides, allowing the water to circulate about it. This gives a water pressure on all side equally, and is termed a water-cushion.

I can hardly comprehend the especial merits of the balance arrangement, so termed, if, as is claimed, the wear and friction is reduced to a minimum. The D valve, which is attached, has its full share of labor, and does not enjoy these benefits.

Some of the internal arrangements give evidence of its being improvised for this occasion, and to these I will more particularly refer in the concluding remarks of this report.

The body is of composition, with iron ends, and registering attachment after the style of Worthington.

It does its work indifferently well ; weight, 27 lbs., occupying a space $6\frac{1}{2}$ by $7\frac{1}{2}$ inches square. Retardation, 33 lbs. ; delivery, 1,500 gallons per hour.

In the examination of the different parts of all these meters, to ascertain the effect of wear upon each in the 336 hours' service, I find those of the double-cylinder style, viz., Worthington, Ball & Fitz, and Equitable, present but slight indications of wear.

The Worthington shows the most in the D valves ; these valves are faced to a plane, and the sliding motion of these valves, pressed as they are to the plane, causes considerable friction. The Ball & Fitz is also affected in like manner, but to a less degree.

The Equitable shows its wear more on the surface of the plungers than either of the others, this machine having no vales ; and of the three the Equitable give most evidence of

wear, and the Ball & Fitz the least, while all three may be considered but slightly worn.

The Crown and Undine, classed as rotaries, and the only two of that class, give little or no evidence of wear; in fact, no perceptible signs are visible; and of the single-cylinder type, viz., Standard, Tremont, and Balance Valve, there seems to be a marked difference. The Standard shows conclusively its inability. The effects of this service are visible upon the valves, which present a battered and worn condition; the pivoted arm is also very much worn, while the pistons come in for no small degree of their share. This I attribute to the poor quality of material, etc.

The Tremont gives little or no symptoms of having done service, and in an examination of the working parts, including the valve, there appears to have been hardly friction enough to present a fairly bright surface, and I am free to say that the quiet and gentle manner of its operations guaranteed this result.

The Balance Valve gives some evidence of wear in the valves; but in the inside arrangements the work seems to have been hastily put together, particularly, the arm and ratchet are made of old pieces soldered together with soft solder. The braces lengthwise are also secured in like manner, while the face of the Balance Valve gives evidence of many changes by alteration, different openings being cut out and filled, and again made tight with solder, presenting a marred and scratched surface. The general appearance is such that it is hard to tell how much was done by service, and how little in the experiments made by these alterations.

The condition of this meter internally is such that no intelligent conclusions can be rendered.

PRICES OF EACH.

Composition. — Iron.

	$\frac{5}{8}$ -inch.	$\frac{3}{4}$ -inch.	1-inch.	2-inch.	3-inch.	4-inch.
Worthington	\$23 50	\$43 00	\$55 00	\$87 60	\$109 00	\$307 00
Ball & Fitz	16 00	25 00	40 00	none m'de	. . .	. . .
Equitable	18 00	27 00	35 00	75 00	130 00	330 00
Standard	23 00	25 00	48 00	87 00	170 00	. . .
Tremont	18 00	25 00	35 00	75 00	125 00	300 00
Undine	10 00	14 00	18 00	40 00	85 00	175 00
Balance Valve	17 00	22 50	40 00	90 00	160 00	. . .
Crown	15 50	25 25	34 00	84 00	150 00	300 00

The mechanical problem — a perfect meter — is not yet, and, perhaps, may never be reached; the difficulties and obstacles in the way of inventive genius and mechanical skill are very numerous; still, it may be said that in the last few years great strides have been made, and some of the instruments produced to-day give evidence in their make-up of the application of superior study and enlarged mechanical skill.

CONCLUSIONS.

The conclusions arrived at are : —

1st. That for accurate measurement of water the Tremont meter is in advance of all others, and is the superior instrument, proving itself nearly perfect in this respect. See Test No. 1, under the different runs, $\frac{3}{4}$, $\frac{3}{8}$, $\frac{1}{4}$, etc., etc.

And second in rank comes the Ball & Fitz; while the Crown comes in third, the Undine fourth, and the Worthington, Equitable, Balance Valve, and Standard bring up the rear.

2d. Simplicity of mechanism must be awarded to the Crown and Undine, they being unquestionably entitled to this award, aside from all other questions. The Crown and Undine rank No. 1 in this regard, while the Tremont comes next, and the Balance Valve third.

3d. *Liability to Obstruction.* — Tremont, Worthington, Ball & Fitz, Equitable, rank No. 1, while the Balance Valve and Standard are No. 2, the Crown and Undine taking no rank.

4th. *Compactness and Weight.* Here, again, the Undine comes in No. 1, as presenting 15 pounds against 26; for the Tremont, which is the next lightest and least in dimension, Balance Valve, Crown, and Standard, third; while the Equitable, Ball & Fitz, and Worthington bring up behind.

5th. *Durability and Material.* The Tremont takes rate as first; while Crown, Ball & Fitz, Worthington, and Equitable, come next; and the Balance Valve and Standard may be called last.

6th. *General Excellence.* I am prepared to say that the Tremont meter is the best constructed, ranking first in material, mechanical skill and device, and in all that goes to make a good instrument, and under this heading is the superior of all the other meters.

During the tests it has been in the advance, and second to none, and I have no hesitation in recommending it to the Board as the most reliable and the best meter in all respects to adopt for general use.

There is a matter in connection with the recording meter

service which I desire to bring to the attention of the committee, and feel that it cannot be urged too strongly for their consideration.

At the present time there are in the service of the city various styles of meters, and as many more different patterns in the market, all being urged for adoption by this department.

The meters already in the service have been doing duty a long time, and need more or less repairs; others will soon demand similar attention. This continual removal and substitution, especially where there are meters of various styles and patterns in use, cause unnecessary annoyance and expense in making the connections.

The remedy for this is the adoption of one uniform style of meter and connections, the connection to be of regulation sizes and thread. I trust the committee will give this suggestion especial consideration.

There are now upwards of 150 $\frac{5}{8}$ -meters that have performed a duty of 100,000 cubic feet or more; these meters should be exchanged for inspection and repairs as soon as circumstances will permit.

In the course of the tests the Spooner, Boston, and Continental meters were disabled, preventing all further experiments with them.

Accompanying this is the descriptive list of the different meters as furnished by the agents of each.

Respectfully submitted,

HIRAM CUTTS,
Sup't Meter Division.

TEST No. 1.—PRESSURE 48 POUNDS TO THE SQUARE INCH.

	3-INCH OUTLET.						3-INCH OUTLET.				1-INCH OUTLET.				1/2-INCH OUTLET.			
	No. of Meter.	Cubic feet Water run.	Cubic feet Indi-cated.	Percentage of Error.	Retardation, lbs.	Time required, M. and S.	Cubic feet Water run.	Cubic feet Indi-cated.	Percentage of Error.	Time required, M. and S.	Cubic feet Water run.	Cubic feet Indi-cated.	Percentage of Error.	Time required, M. and S.	Cubic feet Water run.	Cubic feet Indi-cated.	Percentage of Error.	Time required, M. and S.
Worthington	29,346	10	9.6	4.S	25	2.40	10	9.9	1.S	4.00	10	10.3	3.O	8.00	10	10.7	7.O	23.10
Ball & Fitz	18,097	10	9.6	4.S	21	2.37	10	9.7	3.S	4.20	10	9.8	2.S	8.00	10	10.00	O.	23.15
Equitable	A.D.	10	9.6	4.S	29	2.30	10	9.7	3.S	4.3	10	9.8	2.S	7.50	10	9.7	3.S	22.54
Spooner	3	10	9.9	1.S	20	2.45	10	9.8	2.S	4.10	10	10.3	3.O	7.47	10	10.2	2.O	32.45
Crown	11,721	10	10.2	2.O	25	2.50	10	10.2	2.O	4.00	10	10.2	2.O	7.45	10	10.2	2.O	32.45
Boston	174	10	9.8	2.S	35	4.00	10	9.7	3.S	5.15	10	9.7	3.S	8.45	10	9.3	7.S	24.15
Standard	1,112	10	9.7	3.S	42	5.45	10	9.9	2.S	6.45	10	10.00	O.	9.49	10	9.8	2.S	24.05
Tremont	. . .	10	9.9	1.S	21	3.00	10	10.00	O.	4.25	10	10.00	O.	8.11	10	9.9	1.S	23.37
Balance Valve	. . .	10	9.2	8.S	33	3.27	10	9.2	8.S	4.46	10	9.6	4.S	8.25	10	9.9	1.S	23.39
Continental	2,364	10	9.9	1.S	24	3.35	10	9.9	1.S	4.45	10	9.9	1.S	8.12	10	9.8	2.S	23.10
Undine	956	10	10.1	1.O	18	3.35	10	10.1	1.O	4.10	10	10.1	1.O	8.00	10	10.1	1.O	23.23

TEST NO. 2.—PRESSURE 51 POUNDS TO THE SQUARE INCH.

Consisting of 336 hours' continuous running of all the meters side by side, at an average pressure of 50 pounds to the square inch.

TEST NO. 3.—PRESSURE 43 POUNDS TO THE SQUARE INCH.

	3-INCH OUTLET.				3-INCH OUTLET.				4-INCH OUTLET.				4-INCH OUTLET.				1-INCH OUTLET.				1- ¹ / ₂ -INCH OUTLET.			
	Cubic feet Water run.	Cubic feet Indicated.	Percentage of Error.	Time required.	Cubic feet Water run.	Cubic feet Indicated.	Percentage of Error.	Time required.	Cubic feet Water run.	Cubic feet Indicated.	Percentage of Error.	Time required.	Cubic feet Water run.	Cubic feet Indicated.	Percentage of Error.	Time required.	Cubic feet Water run.	Cubic feet Indicated.	Percentage of Error.	Time required.	Cubic feet Water run.	Cubic feet Indicated.	Percentage of Error.	Time required.
Worthington	10	9.1	9.S	2.45	10	9.5	5.S	4.25	10	9.9	1.S	8.00	10	10	3.O	23.10	1	O.	100.S	38.00	1	O.	100.S	38.00
Ball & Fitz	10	9.6	4.S	2.35	10	9.7	3.S	4.10	10	9.8	2.S	7.50	10	10	O.	23.00	1	.7	30.S	38.45	1	.7	30.S	38.45
Equitable	10	7.7	23.S	2.35	10	8.3	17.S	4.17	10	8.6	14.S	8.00	10	10	66.S	23.00	1	O.	100.S	40.06	1	O.	100.S	40.06
Crown	10	10.00	O.	3.03	10	10.00	O.	5.10	10	10.1	1.O	8.30	10	10	2.O	23.33	1	.8	20.S	40.01	1	.8	20.S	40.01
Standard	10	8.2	18.S	5.27	10	8.6	14.S	6.45	10	O.	100.S	16.10	10	10	100.S	26.10	1	O.	100.S	45.00	1	O.	100.S	45.00
Tremont	10	9.9	1.S	3.20	10	10.00	O.	4.30	10	10.00	O.	8.11	10	10	1.S	23.15	1	.9	10.S	39.00	1	.9	10.S	39.00
Balance Valve	10	7.7	23.S	3.30	10	7.7	23.S	4.45	10	8.00	20.S	8.10	10	10	23.S	22.40	1	O.	100.S	39.00	1	O.	100.S	39.00
Undine	10	10.1	1.O	3.00	10	10.2	2.O	4.30	10	10.2	2.O	8.8	10	10	100.S	24.35	1	O.	100.S	39.40	1	O.	100.S	39.40

CITY OF



BOSTON.

SEMI-ANNUAL REPORT

OF THE

INSPECTOR OF BUILDINGS

FOR THE YEAR 1883.

DEPARTMENT FOR THE SURVEY AND INSPECTION OF
BUILDINGS.

OFFICE OF THE INSPECTOR OF BUILDINGS,
OLD STATE HOUSE, July 1, 1883.

To the Honorable the City Council of the City of Boston: —

GENTLEMEN, — In compliance with the provisions of Section 7 of Chapter 280 of the Acts of 1871, I have the honor to submit for your consideration a detailed report of the operations of this department for the six months ending June 30, 1883.

Very respectfully, I am your obedient servant,

JOHN S. DAMRELL,
Inspector of Buildings.

OPERATIONS OF THE DEPARTMENT.

The number of brick, stone, and iron buildings for which permits have been issued	109
The number of wooden buildings for which permits have been issued	481
The number of wooden or frame buildings with- in the building limits for which permits have been issued	8

The number of buildings for which permits have been issued to have additions built to them, or to have alterations and repairs made upon them	1,061
The number of steam-boilers, engines, etc., for which permits have been issued to set	80
The number of ovens, ranges, etc., for which permits have been issued to build	27
The number of kettles, etc., for which permits have been issued to set	7
The number of furnaces, etc., for which permits have been issued to build	14
The number of heating apparatus, for which notices have been received with intention to put in	126
The number of permits issued for the occupancy of streets, for building purposes	753
The number of electric lights for which permits have been issued to project	29
The number of buildings for which permits have been issued for plumbing	35
The number of examinations made on new buildings, in process of erection	4,094
The number of examinations made on buildings undergoing repairs, alterations, etc.	3,148
The number of special examinations made	64
The number of examinations made on buildings with reference to their means of egress in case of fire or panic	774
The number of examinations made with reference to the setting of steam-boilers	238
The number of examinations made with reference to the setting of heating apparatus	176
The number of examinations made for sundry purposes	226
The number of examinations made of signs, lanterns, transparencies, and druggists' mortars, located in public highways, upon a petition to the Board of Aldermen to maintain the same, if secured to the satisfaction of the Inspector of Buildings	45
The number of examinations made of plans	528
The number of examinations made as to combustible material being improperly stored in buildings	2
The number of examinations made on buildings damaged by fire, or accident, with reference to cause of same	205

The number of reports made of buildings, walls, etc., in an unsafe and dangerous condition .	84
The number of reports made of chimneys in an unsafe and dangerous condition	147
The number of reports made of flues in a defective condition	11
The number of reports made of heating apparatus in an unsafe condition	8
The number of reports made on boilers, furnaces, etc., in an unsafe condition	10
The number of reports made on buildings damaged by fire or accident	363
The number of reports made for sundry purposes	852
The number of notices issued on violations	88
The number of notices issued on unsafe buildings, walls, etc.	42
The number of notices issued on dangerous chimneys	92
The number of notices issued on insufficient egress and fire-escapes	209
The number of notices issued on boilers, furnaces, etc., in an unsafe condition	12
The number of notices issued on stables, with reference to license of same	31
The number of miscellaneous notices issued	465
The number of buildings, walls, etc., in an unsafe condition, recorded	56
The number of chimneys in an unsafe and dangerous condition recorded	100
The number of defective flues recorded	16
The number of heating apparatus in an unsafe condition recorded	8
The number of violations recorded	1,107
The number of requisitions issued for better means of egress from buildings	102

BRICK BUILDINGS.

Classified purpose of building for which permits have been issued :—

Association Building	1
Bakery	1
Boiler House	1
Brewery	1
Charitable Institution	1

Cover to boiler and engine	1
Dry house	1
Dry house and manufacturing	2
Dwellings	32
Dwellings and stores	12
Dwelling and storage	1
Dwelling and stable	1
Engine-house	1
Exhausting-house	1
Filth hoist-house	1
Family hotels	14
Hotels	1
Meter-house	1
Manufacturing and stores	1
Mechanical	1
Mercantile	8
Parochial schools	2
Pumping-station	1
Purifying-house	1
Retort-house	1
Signal-house	1
Stables	6
Storage	3
Stores and offices	5
Tenements	2
Tenements and stores	2
Veterinary establishment	1
Total	109

HEIGHT OF BRICK BUILDINGS.

One story	16
Two stories	16
Three stories	23
Four stories	32
Five stories	15
Six stories	7

STYLE OF ROOF OF BRICK BUILDINGS.

Mansard	13
Flat	79
Pitch	14
Hip	3

WOODEN BUILDINGS.

Classified purpose of building for which permits have been issued:—

Bakery and store	1
Boat-houses	3
Carriage-houses	4
Chapel and dwelling	1
Churches	1
Dry-house	1
Dwellings	305
Dwellings and stores	34
Greenhouses	2
Hotel	1
Lodge-room	1
Manufacturing	4
Mechanical	15
Mercantile	1
Offices	4
Photograph-studios	2
Poultry-houses	6
Privy-closets	1
Restaurants	2
Shooting-galleries	2
Skating-rink	1
Stables	31
Stable and cooper-shop	1
Stable and carriage-house	1
Stable and wagon-shed	1
Storage	47
Stores	2
Wagon-sheds	4
Workshop	2
Total	481

HEIGHT OF WOODEN BUILDINGS.

One story	136
Two stories	240
Three stories	103
Four stories	2

STYLE OF ROOF OF WOODEN BUILDINGS.

Mansard	52
Flat	179

Pitch	220
Hip	30

Number and purpose of buildings for which special permits have been issued :—

Freight-sheds	2
Market purposes	1
Mechanical	1
Wagon-shed and storage	1
Storage of coal	1
Storage	1
Coal-shed	1
Total	8

HEIGHT OF BUILDINGS.

One story	5
Two stories	3

STYLE OF ROOF.

Flat	7
Pitch	1

The number of boilers, engines, furnaces, etc., for which permits have been issued, is as follows :—

ENGINES, BOILERS, FURNACES, ETC.

Steam-engines	11
Steam-boilers	55
Steam-engines and boilers	13
Gas-engine	1
Total	80

Ovens, Ranges, ETC.

Ovens	7
Bakers ovens	5
Drying-ovens	2
Coffee-roasters	2
Broilers	5
Ranges	6
Total	27

KETTLES, ETC.

Smoke-rooms	2
Kettles	5
Total	<u>7</u>

FURNACES, ETC.

Forges	5
Blacksmith forges	5
Tailors furnaces	1
Furnaces	3
Total	<u>14</u>

Grand total 128

Furnace and other heating apparatus 126

The number of violations investigated and reported on is 1,107, as follows:—

Bay-windows projecting into street	4
Broken chain	1
Chimneys supported by wood-work	7
Chimneys not properly bonded	1
Chimneys not properly plastered	5
Defective foundation	1
Defective chimney	1
Defective gutter	1
Defective conductor	1
Defective ropes and wires	48
Doors open from outside	1
Doors open inward	1
Doors not self-locking	1
Doors not metal-lined	4
Door-way not properly closed	1
Drain-pipe not through foundation	1
Exceeding range	1
Earthen pipe in lieu of iron	2
External wall of wood instead of brick	1
Elevator rope too long	1
Elevator shaft not tin-lined	1
Fire-escapes, none	111
Flues against wood-work	5

Foundation insufficient	1
Framing, improper	12
Furnace improperly set	1
Flues not thick enough	9
Floor timbers in flue	1
Framework of elevator car broken	1
Fire-escape not braced	1
Grates improperly set	2
Girders not properly supported	1
Guide-posts out of line	3
Guide-racks poor	2
Guide-posts too far apart	2
Gear broken	1
Hot-air pipe, wood-work against	7
Improper construction	6
Kerosene oil stored in tenement house	1
Material poor	5
No permits	45
No girts	3
No braces	1
No soapstone collar	2
No railing around roof	5
No ventilating skylight	37
No safety lock	31
No automatic stop	43
No brick shaft	1
No metal on dormer window	1
No notice to put in heating apparatus	9
No application to perform plumbing	8
No springs	8
No traps	6
No stirrup-irons	1
No brick wall	1
No cistern	3
Not registered	10
Piers not capped	1
Party-walls not high enough	1
Poor safety lock	76
Poor automatic stop	6
Poor pinion	2
Poor bar	1
Poor packing	1
Poor door-lock	1
Poor brick partition	1
Poor workmanship	1
Pinions loose	1
Pulleys loose	1

Piles not cut off grade	1
Rails, none	311
Register-boxes too near wood-work	1
Register-boxes not cased	1
Smoke-pipe too near wood-work	1
Studding too near chimney	1
Sills below grade	1
Smoke-pipe not protected	6
Soil-pipe not ventilated	3
Soil-pipe too small	1
Soil-pipe improperly connected	1
Timber small size	5
Timber not splayed	1
Timber not anchored	1
Thimbles improperly set	28
Traps, none (elevator)	137
Timbers not tinned	1
Traps not closed (elevator)	1
Traps not ventilated (plumbing)	15
Unsafe elevator platform	1
Unsafe conductor	1
Unsafe rails	1
Unsafe fire-escape	1
Unsafe window cap	1
Unsafe smoke pipes	2
Violation of condition of permit	2
Walls not thick enough	4
Wooden lintels	1
Wooden building altered to tenement	1
Wood-work against brick-work	6
Walls not high enough	2
Wooden bay-windows	1
Wooden caps	1
Total	1,107
Violation of statute	660
Violation of ordinance	447
	1,107

UNSAFE BUILDINGS, WALLS, ETC.

Unsafe buildings	25
“ conductors	2
“ fence wall	1
“ fire-escape	1

Unsafe flagstaff	1
“ front	2
“ floor	1
“ pier	1
“ railing	2
“ smoke-pipe	1
“ walls	17
“ window cap	1
	56
Unsafe heating apparatus	8
Dangerous chimneys	100
Defective flues	16
	224

Number and purposes of buildings for which better means of egress have been ordered : —

Boarding	8
Churches	2
Dormitories	2
Dwellings and stores	7
Express company	1
Family hotels	5
Manufacturing	2
Mechanical	5
Printing	1
Public halls	3
Saloons and lodging	15
School-houses	11
Stores	11
Tenements	19
Tenement and stores	10
Total	102

The number of street permits that have been issued for building purposes : —

January	60
February	58
March	122
April	190
May	188
June	135
Total	753

FIRE RECORDS.

January, 1883 : —

Bursting of steam pipe	
Sparks from locomotive falling on roof . .	\$100 00
No fire	
Spontaneous combustion	500 00
No fire	
Incendiary	200 00
Window-curtain in contact with gas-jet . .	25 00
“ “ “ “ . .	25 00
Ashes from lighted pipe falling on bed	
Chimney on fire	
Children playing with lighted candle	
Kerosene-lamp explosion	
Refuse placed against stove	
Hot coals placed in wooden barrel	
Lighted match in contact with curtain	
Rats or mice among matches	20 00
Spontaneous combustion	300 00
Fire falling on floor from grate	10 00
Incendiary	5 00
Window-curtain in contact with lamp	
Defective chimney	50 00
Chimney on fire	
“ “	
Hot coals placed in wooden barrel	200 00
Overheated stove	
Defective furnace	1,000 00
Overheated stove	200 00
Caught from smelting furnace, cause unknown	150 00
Overheated stove	200 00
Ignition of dust on hot-air pipes	1,700 00
No fire	
Spontaneous combustion	75 00
Overheated steam-pipe	4,000 00
Thawing water pipes	
Children playing with lighted paper	
Charcoal dust ignited by fire falling from boiler	450 00
Carpet placed in thimble-hole	
Lighted match thrown on straw	1,200 00
Steam pipe, bursting of	
Matches in clothing, igniting	25 00
Fire from forge falling on floor	125 00
Defective chimney	5 00
Defective chimney	75 00
No fire	

Incendiary	\$75 00
Chimney on fire	
Bursting of steam pipe	
Spontaneous combustion	100 00
“ “	200 00
Gas, explosion of	
Kerosene oil-stove, upsetting of	50 00
No fire	
Children playing with matches	50 00
Overheated smoke pipe	5 00
Lighted lamp in contact with straw	
No fire	
Incendiary	350 00
Thawing frozen water-pipes	
Lighted match thrown in waste paper	40 00
Spontaneous combustion	5,418 00
Thawing frozen water-pipes	307 00
Caught from adjoining building	260 00
Overheated stove	25 00
Overheated stove	150 00
Overheated stove	1,465 00
Lighted match thrown on floor	20 00
Stove-pipe, unprotected	100 00
Naphtha, explosion of	20 00
Incendiary	15 00
Children playing with matches	50 00
No fire	
Spontaneous combustion	200 00
Defective chimney	300 00
Ignition of leaking gas	
No fire	
Lighted match laid on bed	
Window-curtain in contact with gas-jet	
No fire	

Recapitulation of causes : —

Caught from adjoining building	1
Caught from smelting furnace	1
Charcoal dust ignited by fire from broiler	1
Children playing with matches	2
Defective chimney	4
Defective furnace	1
Fire falling from grate on floor	1
Fire from forge falling on floor	1
Hot coals placed in wooden barrel	1
Ignition of dust on hot-air pipes	1

Incendiary	5
Kerosene oil lamps upsetting	1
Lighted match thrown on floor	1
“ “ “ “ straw	1
“ “ “ “ waste-paper	1
Matches in clothing igniting	1
Naphtha, explosion of	1
Overheated smoke-pipe	1
“ steam-pipe	1
“ stove	5
Rats or mice among matches	1
Sparks from locomotive falling on roof	1
Spontaneous combustion	7
Stove-pipe unprotected	1
Thawing frozen water-pipes	1
Window-curtain in contact with gas-jet	2
 Fires	 78
Buildings damaged	45
Amount of damage to buildings by fire	.\$19,840 00

February : —

Incendiary	600 00
Spontaneous combustion	260 00
Sawdust falling in register box	
Clothing in contact with gas	
Overheated stove	
Defective flue	1,000 00
Caught from adjoining building	40 00
Children playing with matches	
Spontaneous combustion	25 00
Incendiary	600 00
Spontaneous combustion	1,200 00
Defective steam-boiler	300 00
Breaking of kerosene-oil lamp	
Lighted candle placed on floor	300 00
Children playing with matches	50 00
Fire from stove falling on floor	25 00
No fire	
Lighted cigar thrown in wooden spittoon	20 00
Spontaneous combustion	25 00
“ “	500 00
Lighted match dropped in box of wood	
Explosion kerosene-oil lamp	25 00
Overheated furnace	150 00
Fire on tug-boat	
No fire	

Clothing in contact with stove	
Defective chimney	\$50 00
No fire	
Sparks falling from a box of coke	50 00
Overheated stove	400 00
Lighted match thrown on lounge	
Paper placed in funnel-hole ignited by sparks	50 00
Lighted paper placed against wood-work	50 00
Lighted match falling on lounge	40 00
Heated iron from forge falling on floor	400 00
Heated coals placed in wooden receptacle	25 00
Breaking of kerosene-oil lamp	250 00
Charcoal cinders falling on floor	1,500 00
Kerosene oil igniting	
Accident — explosion on ledge	
Lighted candle upset upon bedding	
No fire	
Defective flue	900 00
Caught from adjoining building	200 00
“ “ “ “	500 00
Heated coals falling on floor	
Lighted match thrown in paper box	250 00
Defective chimney	5,000 00
Lighted cigar falling on mattress	25 00
No fire	
Heated coals from furnace falling on floor	800 00
Kerosene-oil lamp upset	
Heated coals from boiler falling on floor	60 00
Caught from adjoining building	50 00
Amount of damage incurred	16,520 00
Number of fires	54
Buildings damaged	35

Recapitulation of causes classified : —

Caught from adjoining building	4
Charcoal cinders falling on floor	1
Children playing with matches	1
Defective chimney or flue	4
Defective steam-boiler	1
Heated coals from boiler falling on floor	1
“ “ “ furnace “ “ “	1
“ “ “ stove “ “ “	2
“ “ placed in wooden receptacle	1
iron falling on floor from forge	1
Incendiary	2
Kerosene-oil lamp, breaking of	1
“ “ “ explosion	1

Lighted cigar falling on mattress	1
“ “ thrown on spittoon	1
“ “ matches falling on lounge	1
“ “ “ thrown in paper box	1
Paper placed in funnel hole	1
Lighted paper placed against wood-work	1
Overheated furnace	1
“ stove	1
Sparks falling in box of coke	1
Spontaneous combustion	5

March : —

Lighted match dropped in rags	
No fire	
Lighted match dropped in curtain	\$100 00
Sparks from forge falling on floor	5 00
Defective chimney	25 00
Spontaneous combustion	
Wood-work in contact with stove-pipe	
Sparks from chimney falling on roof	200 00
Ashes placed in wooden barrel	
Spontaneous combustion	
Heated iron falling on floor	75 00
Thawing frozen water-pipes	
Lighted matches dropped on floor	150 00
Defective flue	10 00
Ashes placed in wooden barrel	
Children playing with matches	
Incendiary	3,000 00
Caught from adjoining building	300 00
“ “ “ “	20 00
Defective chimney	800 00
Incendiary	1,200 00
Thawing frozen water-pipes	20 00
Incendiary	
Lighted cigar dropped on floor	
Kerosene-oil lamp, explosion	25 00
Kettle of hot fat boiling over on floor	
Gas-jet in contact with curtain	
Defective chimney	25 00
Incendiary	
“	
Lighted paper in contact with clothing	
Incendiary	100 00
Lighted pipe in contact with clothing	
Gas, explosion of	100 00
“ “ “	800 00

Gas, explosion of	\$300 00
Gas-jet in contact with wood-work	
Spontaneous combustion	
Overheated stove	350 00
Rats among matches	4,000 00
No fire	
Stove overthrown	
No fire	
Defective chimney	75 00
Spontaneous combustion	150 00
Overheated shaft box	
Lighted match in contact with curtain	
Kerosene-oil lamp, upsetting	15 00
Overheated smoke-pipe	125 00
Fire on schooner	
Overheated stove	25 00
Incendiary	25 00
Rats among matches	
Incendiary	500 00
Overheated stove	50 00
Incendiary	
Overheated boiler	100 00
Kerosene-oil lamps, breaking	50 00
Incendiary,	
Spontaneous combustion	216 00
“ “ “ “	850 00
Lighted pipe laid on bed,	
Asphaltum ignited by lighted candle	1,200 00

Recapitulation of causes classified : —

Asphaltum ignited by lighted candle	1
Caught from adjoining building	2
Defective chimney	5
Gas explosion	3
Heated iron falling on floor	1
Incendiary	5
Kerosene-oil lamp breaking	1
“ “ upsetting	1
“ “ explosion	1
Lighted match dropped on floor	1
“ “ “ in curtain	1
Overheated smoke-pipe	1
“ stove	3
Rats among matches	1
Sparks from chimney falling on roof	1
“ forge falling on floor	1

Spontaneous combustion	3
Thawing frozen water-pipes	1
Overheated boiler	1
Damage incurred by fire	\$15,920 00
Number of fires	63
Number of buildings damaged	34

April : —

Incendiary

Ashes placed in wooden barrel	\$100 00
Grass fire, incendiary	25 00
Lighted match dropped on floor	25 00
Incendiary	300 00
Caught from adjoining building	38 00
“ “ “	120 00
“ “ “	188 00
“ “ “	233 00
Rats among matches	175 00

Duplicate alarm

Fire in Brookline

Lightning

Children playing with matches

Incendiary

Soot in chimney

Sparks from locomotive

Fire in woods, incendiary	25 00
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Kerosene oil lamp explosion

Grass fire, incendiary	5 00
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Clothing in contact with lighted lamps

Careless use of matches	100 00
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Children playing with matches	75 00
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Spontaneous combustion	26,000 00
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Kerosene-oil lamp explosion	60 00
---------------------------------------	-------

“ “ breaking	50 00
------------------------	-------

No fire

“

Incendiary

“	15 00
-------------	-------

Ashes placed on floor	900 00
---------------------------------	--------

Brush fire

“

“

Rats among matches

Kerosene-oil lamp, explosion	150 00
--	--------

Defective chimney	10 00
-----------------------------	-------

Children playing with matches

Brush fire

“

“

Ashes placed in wooden barrel

Hot fat igniting on stove

Spontaneous combustion \$100 00

Bedclothing becoming ignited

Overheated stove 10 00

Grass fire

Brush fire

“

Incendiary 150 00

Brush fire

“

“

“

“

Sparks from locomotive

Brush fire

No fire

“

Soot in chimney taking fire 20 00

Lighted match thrown in straw

Overheated oven

Brush fire

Kerosene-oil lamp, breaking

Brush fire

No fire

Cigar-lighter upsetting

Sparks from forge igniting charcoal 200 00

Rats among matches 100 00

Brush fire

No fire, accident

Kerosene-oil lamp, upsetting

Brush fire

Lighted cigar dropped in waste paper 15 00

Incendiary

Heated coals placed on hearth 350 00

No fire

Fire from chimney falling on excelsior

Oil in tank igniting

Recapitulation of, causes classified : —

Ashes placed in wooden barrel 1

“ on hearth 1

“ on floor 1

Careless use of matches 1

Caught from adjoining building	4
Children playing with matches	1
Defective chimney	1
Incendiary	6
Kerosene-oil lamp explosion	2
“ “ “ breaking	1
Lighted cigar dropped in waste paper	1
Lighted match dropped on floor	1
Overheated stove	1
Rats among matches	2
Soot in chimney taking fire	1
Sparks from forge igniting charcoal	1
Spontaneous combustion	2
Damages incurred by fire	\$29,782 00
Number of fires	79
Number of buildings damaged	28

May : —

Ashes placed on floor	
Kerosene-oil lamp explosion	\$20 00
Spontaneous combustion	
Incendiary	15 00
Lighted match dropped in shavings	
Brush fire	
Lighted cigar thrown on floor	50 00
No fire	
Spontaneous combustion	
No fire	
Sparks from chimney falling on roof	
Overheated boiler	
Spontaneous combustion	
Wood-work in contact with stove	
Upsetting of kettle of fat	
No fire	
Ashes placed on floor	10 00
Incendiary	5,000 00
Caught from adjoining building	40 00
Spontaneous combustion	300 00
“ “	
“ “	800 00
Incendiary	5 00
Soot in chimney taking fire	
Rats among matches	300 00
Spontaneous combustion	500 00
Kettle of pitch boiling over	
Brush fire	

Incendiary	\$500 00
Sparks from locomotive	
Incendiary	230,000 00
Lighted cigar thrown on awning	
Ignition of matches	
Grass fire	
“ “	
Children playing with matches	
Kerosene-oil lamp explosion	20 00
Incendiary	
Ashes placed in wooden barrel	20 00
Incendiary	400 00
“	500 00
“	
Kerosene-oil lamp explosion	6 00
Incendiary	25 00
Children playing with matches	
Matches thrown on floor	
Incendiary	50 00
Brush fire	
Lighted match dropped on floor	25 00
Chelsea	
Match dropped on floor	
“ “ straw	
Lighted lamp in contact with clothing	700 00
Ignition of varnish	95 00
Overheated shaft	10,600 00
Lighted lamp falling on bed	5 00
No fire	
Sparks from chimney falling on roof	40 00
“ “ furnace “ “ floor	
Lighted gas-jet in contact with show goods	
On a ship	
Incendiary	50 00
Gas-jet in contact with window curtain	25 00
No fire	
Sparks from pipe falling on bed	
“ “ “ “ shavings	
Spontaneous combustion	200 00

Recapitulation and classification of causes : —

Ashes placed in barrel	1
“ “ on floor	1
Caught from adjoining building	1
Gas-jet in contact with curtain	1
Ignition of varnish	1

Incendiary	10
Kerosene-oil lamp	3
Lighted cigar thrown on floor	1
“ lamp falling on bed	1
“ “ in contact with clothing	1
“ match dropped on floor	1
Overheated shaft	1
Rats among matches	1
Sparks from chimney falling on roof	1
Spontaneous combustion	4
Damage incurred	\$250,301 00
Number of fires	67
Number of buildings damaged	29

June : —

Sparks from chimney falling on roof	
Spontaneous combustion	
Lighted lamp in contact with curtain	\$5 00
Incendiary	
“	
Spontaneous combustion	2,000 00
Varnish boiling over	
Lightning	100 00
“	100 00
“	100 00
“	20 00
Defective chimney	20 00
Spontaneous combustion	125 00
Naphtha explosion	
Lightning	
Incendiary	1,200 00
Caught from adjoining building	200 00
“ “ “	30 00
Defective flue, rags placed in thimble	225 00
Caught from adjoining buildings	100 00
Breaking of kerosene-oil lamp	20 00
Window-curtain in contact with lamp	
Incendiary	190 00
Gas-jet in contact with window-curtain	500 00
Incendiary	
No fire	
Fireworks falling on roof	10 00
Kerosene-oil lamp explosion	
Coal-gas explosion	29,000 00
Fireworks falling on rubbish	
“ “ on roof	25 00

Defective chimney	\$5 00
No fire	
Fire falling in barrel	
Gas-jet in contact with wooden partition .	50 00
Spontaneous combustion	500 00
Defective flue, thimble unprotected	
Kerosene oil lamp explosion	40 00
Defective forge	25 00
Lamp in contact with curtain	
Incendiary	
Fire from pipe falling on hay	
Lighted match dropped on floor	1,000 00
Friction of machinery	100 00
Spontaneous combustion	450 00
Incendiary	
“	
“	10 00
Spontaneous combustion	400 00
Kerosene-oil lamp explosion	200 00
“ “ “	
Incendiary	15 00
“	
“	300 00
No fire	
“	
Ignition of dust on boilers	10 00
Kerosene-oil lamp explosion	
Lighted cigar dropped in refuse	400 00

Recapitulation and classification of causes :—

Caught from adjoining building	3
Coal-gas explosion	1
Defective chimney	3
“ forge	1
Fireworks falling on roof	2
Friction of machinery	1
Ignition of dust on boiler	1
Incendiary	5
Kerosene-oil lamp breaking	1
“ “ “ explosion	2
Lighted cigar dropped in refuse	1
“ gas-jet in contact with curtain	1
“ “ “ “ “ partition	1
“ lamp “ “ “ curtain	1
“ match dropped on floor	1
Lightning	4
Spontaneous combustion	5

Number of fires	59
Number of buildings damaged	34
Amount of damage incurred	\$37,375 00

Six months classification of causes :—

Asphaltum ignited by lighted candle	1
Careless use of matches	1
Caught from adjoining building	15
“ “ smelting furnace	1
Charcoal cinders falling on floor	1
Children playing with matches	4
Coal-gas explosion	1
Defective chimney	18
“ forge	1
“ furnace	1
“ steam-boiler	1
Fire falling on floor from forge	1
“ “ “ grate	1
Fire-works falling on roof	2
Friction of machinery	1
Gas-explosion	3
Heated coals from boiler falling on floor	1
“ “ “ furnace “ “ “	1
“ “ “ stove “ “ “	2
“ “ placed in barrel “ “	4
“ “ “ on floor	2
“ “ “ “ hearth	1
“ iron falling on floor	2
Ignition of charcoal dust	2
“ “ dust on boiler	1
“ “ “ hot-air pipe	1
“ “ varnish	1
Incendiary	33
Kerosene-oil lamp breaking	4
“ “ explosion	9
“ “ upsetting	3
Lighted cigar dropped in waste paper	2
“ “ falling on mattress	1
“ “ thrown in spittoon	1
“ “ “ on floor	1
“ gas-jet in contact with curtain	4
“ “ “ partition	1
“ lamp “ “ clothing	1
“ “ “ “ curtain	1
“ match dropped on curtain	1
“ “ falling on lounge	1

Lighted match thrown on floor	5
“ “ “ straw	1
“ “ “ waste paper	2
“ paper placed against wood-work	1
Lightning	4
Matches in clothing igniting	1
Naphtha explosion	1
Overheated boiler	1
“ furnace	1
“ shaft	1
“ smoke-pipe	2
“ steam-pipe	1
“ stove	10
Rats among matches	5
Soot in chimney taking fire	1
Sparks falling in box of coke	1
“ from chimney falling on roof	2
“ “ forge falling on floor	1
“ “ locomotive falling on roof	1
Spontaneous combustion	26
Unprotected stove-pipe	1
Thawing frozen water-pipes	2
Number of buildings damaged	205
Number of fires	400
Damage caused to buildings	\$369,738 00

As follows :—

January	\$19,840 00
February	16,520 00
March	15,920 00
April	29,782 00
May	250,301 00
June	37,375 00
Total	<u>\$369,738 00</u>

CITY OF



BOSTON.

ORDINANCE

RELATING TO THE

SALARIES OF ASSISTANT INSPECTORS OF BUILDINGS.

In the year one thousand eight hundred and eighty-three.

AN ORDINANCE TO AMEND CHAPTER SIX OF THE REVISED ORDINANCES.

Be it ordained by the City Council of Boston, as follows: —

SECTION 1. Chapter six of the Revised Ordinances is hereby amended in section one, by striking out of the last line of the clause relating to the Assistant Inspectors of Buildings, on page seventeen, the word "four" and inserting the word "five" in place thereof.

IN COMMON COUNCIL, Sept. 20, 1883.

Read, ordered to a second reading, and ordered to be printed.

W. P. GREGG,
Clerk of the Common Council.

CITY OF



BOSTON.

ORDINANCE

RELATING TO THE

SALARY OF SUPERINTENDENT OF CHELSEA BRIDGE (SOUTH).

In the year one thousand eight hundred and eighty-three.

AN ORDINANCE TO AMEND CHAPTER SIX OF THE REVISED
ORDINANCES.

Be it ordained by the City Council of Boston, as follows:—

SECTION 1. Chapter six of the Revised Ordinances is hereby amended in section one by striking out of line two, in the clause relating to the Superintendent of Chelsea bridge (south), on page nineteen, the words "two hundred" and inserting the words "three hundred" in place thereof. Also by striking out of the same clause, on page twenty, all after the words "salary of," in the third line, and adding in place thereof, the words, "each of whom shall be seven hundred dollars."

IN COMMON COUNCIL, Sept. 20, 1883.

Read, ordered to a second reading, and ordered to be printed.

W. P. GREGG,

Clerk of the Common Council.



CITY OF



BOSTON.

ORDINANCE

RELATING TO

CLERK-HIRE IN CITY REGISTRAR'S DEPARTMENT.

In the year one thousand eight hundred and eighty-three.

AN ORDINANCE TO AMEND CHAPTER SIX OF THE REVISED
ORDINANCES.

Be it ordained by the City Council of Boston, as follows:—

SECTION 1. Chapter six of the Revised Ordinances is hereby amended in section two in the clause providing for clerk-hire in the City Registrar's Department, by striking out the word "three" in the first line of said clause, and inserting the word "six" in place thereof.

IN COMMON COUNCIL, Sept. 20, 1883.

Read, ordered to a second reading, and ordered to be printed.

W. P. GREGG,
Clerk of the Common Council.

CITY OF



BOSTON.

ORDINANCE

RELATING TO THE

SUPERINTENDENT OF PRINTING.

In the year one thousand eight hundred and eighty-three.

AN ORDINANCE TO AMEND CHAPTER TWENTY-NINE OF THE
REVISED ORDINANCES.

Be it ordained by the City Council of Boston, as follows: —

SECTION 1. Section seven of Chapter twenty-nine of the Revised Ordinances is hereby amended by adding the following words: —

"The said Superintendent shall on the fifteenth day of each month send to the several departments detailed bills of the stock used by them during the preceding month; and the amounts received by the collector in payment of said bills shall be placed to the credit of the appropriation for Printing and used for the purposes for which said appropriation was raised."

IN COMMON COUNCIL, Sept. 20, 1883.

Read, ordered to a second reading, and ordered to be printed.

W. P. GREGG,
Clerk of the Common Council.

CITY OF



BOSTON.

ORDINANCE

RELATING TO THE

SALARY OF SUPERINTENDENT OF COMMON
AND PUBLIC GROUNDS.

In the year one thousand eight hundred and eighty-three.

AN ORDINANCE TO AMEND CHAPTER SIX OF THE REVISED
ORDINANCES.

Be it ordained by the City Council of Boston, as follows: —

SECTION 1. Chapter six of the Revised Ordinances is hereby amended in section one by striking out of the clause relating to the Superintendent of Common and Public Grounds, on page seventeen, the words "two thousand two hundred dollars" and inserting the words "three thousand dollars" in place thereof.

IN COMMON COUNCIL, Sept. 20, 1883.

Read, ordered to a second reading, and ordered to be printed.

W. P. GREGG,
Clerk of the Common Council.

CITY OF



BOSTON.

REPORT

OF THE

COMMISSIONERS ON INVESTIGATION OF WATER SUPPLY.

IN COMMON COUNCIL, Feb. 15, 1883.

To the Honorable the City Council: —

The Commission appointed in September last, to whom was referred the petition of Henry J. Barnes and others, asking for an investigation of the water supply of the city, would respectfully submit the following

REPORT:

Although the terms of the order under which the Commission acted were sufficient to warrant an examination of all the sources from which the city derives its water, yet, as there has been no recent public manifestation of discontent with the Mystic supply, and as it was not alluded to in the petitions referred to the Commission, it has not been included in the investigation.

In endeavoring to arrive at a proper conclusion in regard to the Cochituate and Sudbury supplies the following course was adopted: Hearings were first given to the petitioners, and the Water Board and the City Engineer were then requested to make such statements as they desired. The Commission then called before them the various experts in the vicinity who were specially familiar with the subjects in question, and, as the testimony given by several of these gentlemen is of great interest, and should be preserved, it has

been decided to submit it as an appendix, where it may be examined by those who wish to satisfy themselves in regard to some of the reasons which have influenced the Commission in making this report.

The sources of supply have been carefully examined, and also the sources of pollution. Other large cities have been visited, to obtain information in regard to the causes of the various troubles from which they also had suffered.

It is a matter of regret that it has been necessary to delay for so long a time a report in which the community has so deep an interest; but the consideration of the supply of water to a large city opens so many difficult questions that a still longer period might advantageously have been employed.

The Commission, however, having unanimously agreed upon the principal points before them, present them at once, believing that their opinions will bear the criticism of all who carefully investigate the subject.

The supply of water in Boston from the Sudbury and Cochituate systems is about 32 millions of gallons a day, of which about 20 millions are commonly taken from the Sudbury basins and about 12 from Lake Cochituate, though the latter quantity is more than the lake can be counted on to always furnish.

Lake Cochituate is a fine sheet of water, with gravelly shores, and if unpolluted and properly cared for is as good a source of supply as any city could wish to possess. As, however, the chief cause of trouble has arisen in the Sudbury river, that subject will first be considered.

The Sudbury is a small river, starting from Whitehall pond, in the town of Hopkinton, and running eventually into the Concord river. Its flow varies from almost nothing in a time of drought to hundreds of millions of gallons a day in the early spring. The water must be stored at that time, and preserved until wanted, at some later date; and it is to this fact that much of the trouble is due. No purity of supply or preparation of basin seems to be able to thoroughly protect a large body of stagnant water when exposed to the summer heat. At the same time the troubles experienced may be considerably modified by proper precaution. Given a large body of quiet water, the best way to promote the growth of *algæ* and similar aquatic plants is to store the water in a pond so shallow as to allow it to become thoroughly heated to the bottom, and have that bottom composed of a thick layer of vegetable mould. Although the basins on the Sudbury river are sufficiently deep in the centres to keep the water tolerably cool, yet in each of them there is a large quantity of shallow flowage, where the conditions

referred to exactly obtain. It is true that the experience of Boston is only that of many other cities which have suffered in the same way. It is true, also, that it is only from experience that wisdom is learned, and that it is much easier to say what should have been than to say what ought to be; for, if prophecies were made of future trouble when the basins were built, they did not carry conviction with them. The fact is now unquestionable, in the judgment of the Commission, that the only way to properly construct a basin is to take the loam *all out*. Circumstances might be such that other means would have to be devised to accomplish the same result at a less cost, but no basin could be considered properly prepared for use in the near future which did not remove or entirely cover up all decaying loam. If a basin is not wanted for a number of years the loam might then be allowed to remain. A pond so constructed will annually work and ferment until all vegetable matter has been absorbed and carried off, and in course of time it will assume the condition of a natural basin; but the length of time that this will require is so uncertain that no city can afford to wait for its accomplishment by natural means. On the Sudbury river the basin from which this sort of trouble chiefly comes has greatly improved since first put in use. Its fermentation comes every year at a later date, and before many years the body of the basin will probably be in good condition; but the shallow portions must either be materially deepened or abandoned altogether, if any permanent and thorough improvement is to be anticipated.

There are three causes of complaint in connection with this water: first, *Algæ*; second, *Spongilla*, or the fishy taste; third, the presence in the water of more organic matter than is proper for good drinking-water. The *first* has already been spoken of. It is liable to find its way into still and warm ponds, no matter what may be the sides or bottom; but it flourishes more abundantly in shallow water, and grows luxuriantly in Basin 3, or similar reservoirs. It has been seen on the borders of Basin 2; but the great quantity of water rushing through Basin 2, in the spring of every year, probably carries away most of the spores which may have been deposited, and the current of the river is much stronger than that of Stony brook, on which Basin 3 is situated, and prevents that condition of absolute quiet which is so advantageous to their growth. Basins 2 and 3 are identically constructed, and yet the water in Basin 2 has, practically, been as free from *algæ* as that in Basin 3 has been filled with them.

Second. — The *Spongilla*. To this, the disagreeable fishy taste is probably due. The Commission are, of course,

unable to say that this taste cannot be otherwise produced ; but it certainly can be by the *Spongilla*. What is known of the habits of the sponge can be found in Prof. Hyatt's testimony. It has been learned that a similar taste has frequently affected the water supplies of other cities ; and it was troubling Baltimore when that city was recently visited by the Commission. It flourishes in Farm pond and on the walls of the conduit. It is one of those afflictions for which there is but one remedy. The city must be able to absolutely cut off the infected supply, which will purify itself in time. In the case of Boston this means that it is necessary to construct a conduit around or across Farm pond, and to largely increase our available resources. This can be done either by increasing our supply or decreasing our consumption. Either can be done ; but, while both are feasible, the latter course is unquestionably the most economical. The consumption of the city should never have been allowed to attain its present size, and it could, without materially inconveniencing the citizens, be reduced to such proportions as to give the necessary surplus. One other precaution can be taken, and that is to thoroughly cleanse both conduits each year ; for the *Spongilla* grows in great quantities upon their walls where the circumstances are very favorable for its development.

Third. — Excessive organic matter. The presence of a large quantity of what is described by chemists as albuminoid ammonia in the water, is held by all the physicians in the community to be deleterious to the public health. All water analyses are far from satisfactory when an attempt is made to demonstrate, by chemical formulæ, the dangerous or unhealthy condition of any water supply. Certain facts only can be definitely determined, and inferences must be made from these in accordance with outside circumstances. The presence of albuminoid ammonia denotes decayed organic matter, which might be either vegetable or animal ; but in case of the Sudbury water is undoubtedly vegetable.

The amount of this matter which a healthy water can contain has been the subject of much study by English analysts, and they have promulgated the accepted formula that no water containing over 0.015 parts in the 100,000 of albuminoid ammonia is suitable for drinking purposes. Although it is not possible for any physician in the community to bring forward a single instance where illness was undoubtedly caused by a too large quantity of organic matter in the water, and although water much worse than this is freely used elsewhere without public remonstrance, yet there is so universal an expression of opinion from the medical profession in this city of the injurious character of the water to invalids, children,

and all delicate people, especially when suffering from diseases of the bowels, that the Commission cannot but consider it a matter of so much moment as to warrant the expenditure of large sums of money to remove this source of complaint. The water from the river and from Stony brook contains an amount of organic matter, which, though varying in quantity, is yet always in excess. If the basins had been properly prepared the water would, by standing in them, lose by deposition and oxidation a quantity of the matter held in suspension or solution, sufficient to render the water purer and perfectly healthy. It has, however, been shown by careful analysis, executed for the Commission by Prof. Wood,¹ that the water instead of losing organic matter in the basins actually takes it up, and, although it loses some at Chestnut-Hill reservoir, it still contains too much in Boston. This can only be *thoroughly* remedied by a removal of *all* the loam from the basins and allowing the water to stand until purified. It can unquestionably be much *helped* by resorting to another remedy previously suggested, the abandonment of all shallow flowage, and the removal of loam from all parts of the pond except the central deepest portions, which are undoubtedly very difficult and expensive to reach.

To sum up the recommendations of the Commission in regard to the Sudbury supply they are as follows:—

1. A conduit should be built across Farm pond.
2. The aqueduct to Boston should be thoroughly cleaned each year.
3. The basins should be deepened around the edges, no shallow flowage of less than 8 feet tolerated, and all loam should be removed from this part of the bottom. If this were done its effect upon the water might be tried for a year before commencing the much greater business of removing the large accumulations from the centre of the basins.
4. Measures should be taken at once to reduce the consumption.

With these precautions the Commission have no hesitation in saying that they believe the Sudbury river can be made a sufficiently healthy and satisfactory supply; although it will probably always retain a slight color as compared with the Cochituate.

Some of the troubles which have been prevalent in the Cochituate water have been the same as those by which the Sudbury has been affected; but there is another very serious one from which the Sudbury is almost wholly free.

The sponge has been found here, and its peculiar taste

¹ See page 186.

produced. For this there is no remedy except time to recover, and extermination whenever found.

Algæ have been always observed to some extent; but these have probably come from the shallow flowage, by which the storage capacity of the lake has been increased, and have never affected the whole body of water to any such extent as to call for public remonstrance.

The sewage contamination to which the lake is exposed, however, is so grave a matter as to demand immediate action. It is impossible to present too strong a protest against the existing condition of affairs. It is true that chemical analysis is again powerless to demonstrate the effect of sewage which has been poured into a water supply in comparatively small quantities and at a considerable distance. Medical testimony is, however, practically unanimous, as to the peril of even a very small quantity of healthy human sewage, and it is perfectly clear on the point that the germs of disease which are contained in the discharges from the sick never lose their danger, even when greatly diluted or borne a long distance. They cannot be found in water by analysis; but they are there, and if, by chance, they find in a human body the proper condition for their development, disease would probably ensue. An outbreak of cholera or typhoid fever in Natick would be looked on with great anxiety by the physicians of Boston. It would seem as if there could be no question on the part of anybody as to the danger arising from the pollution of drinking-water by human sewage, and, so far as the Legislature of this State has acted, it has always been in accordance with this principle.

The Commission believe that no man has the right to defile the water supply of a community, and it is the imperative duty of city authorities to prevent and punish such pollution.

It is, nevertheless, the fact that, in spite of earnest efforts to remedy this evil, means have been found to evade the law as it now stands. Something, however, must be done. If the law advisers are of the opinion that no existing law can be enforced against offenders, there are three courses open to the city: First, to strenuously endeavour to obtain the passage by the Legislature of such a law as shall enable the city to protect its supply against pollution, whether caused by a town sewer, a prison of the Commonwealth, or a manufactory. The city is undoubtedly willing and ready to pay for all vested rights of drainage, if any such exist, but ought not to be driven to the second alternative of caring for all the sewage which threatens to pollute its sources of supply. To do this would not only abandon a principle which is in accord with the settled doctrines of the common law and all

modern legislation on the subject, but would also subject the city to great and constantly increasing expense.

Third, to abandon the supply. This would be a misfortune, for it is impossible to find a source naturally better than Lake Cochituate; but if the present condition prevails, and the water is to be polluted with impunity, it will, at no distant date, become entirely unfit for drinking purposes.

The recommendations which the Commission make for the Cochituate are:—

First. — To abandon all shallow flowage where the water is less than eight feet deep, and remove what loam there may be in water of that depth.

Second. — To thoroughly cleanse the Cochituate aqueduct every year, to ensure the removal of the sponge.

Third. — To prosecute without delay the people now polluting our supply, or else, if in the opinion of eminent counsel the present statutes are insufficient, to seek legislative relief. In spite of the protests which would be made by communities interested in polluting water, which they do not drink themselves, the Commission feel that the Legislature of Massachusetts will be found willing to enact the necessary laws, provided the futility of the present ones can be shown.

It has also been brought strongly to the attention of the Commission that a scientific examination, extending over a term of years, would probably furnish facts of much value to the city. They, therefore, recommend the engagement of some competent person by the Water Board, whose duty it would be to make periodic examinations for a term of years and report the results to the City Council.

JOSEPH CALDWELL,
MALCOLM S. GREENOUGH,
NATH'L J. BRADLEE,
JOHN G. BLAKE,
HARVEY N. SHEPARD.

APPENDIX.

REPORT OF THE HEARINGS BEFORE THE SPECIAL COMMISSION TO WHOM WAS REFERRED THE PETITION OF HENRY J. BARNES AND OTHERS FOR AN INVESTIGATION OF THE CONDITION OF THE WATER SUPPLY OF BOSTON.

FIRST HEARING.

WEDNESDAY, October 4, 1882.

The Commission met at 4 P.M., Alderman Caldwell, Chairman, and all the members present.

The Clerk read the call, and the Chairman announced that the Commission were ready to hear any suggestions.

STATEMENT OF DR. HENRY J. BARNES.

Dr. H. J. BARNES. — I do not know that I fully understand the scope of this inquiry ; whether it is admitted that the condition of the water has been such as to give cause for reasonable complaint ; or whether you seek to get opinions from people as to the cause of the difficulty.

The CHAIRMAN. — The intention of the Commission is to get all the information that there is in regard to the water supply.

Dr. BARNES. — It was only last evening that I received a notice of this meeting, and I have not arranged for a hearing, as I should have done to meet the case, had I received earlier notice. But if you think well, I will read to you the expressions of some of the gentlemen who signed the petition.

But, in the first place, I wish to call the attention of the Commission to the activity of the spring water-carts about the city for the past two years. Nobody can dispute that there has been an unusual sale of spring-water in Boston, and as the author of the petition presented to the City Government asking for an investigation, I obtained some signatures ; but many gentlemen interested in the subject carried the petition about themselves, such as Kidder, Peabody & Co., Jordan, Marsh, & Co., Harvey D. Parker & Co., and others. Mr. Punchard, of the firm of H. D. Parker & Co., when I presented the petition to him, said he hoped something would be done, as it was costing them something like a hundred dollars a month for spring-water. At Lewis Coleman & Co.'s the young men had clubbed together to buy spring-water, claiming that the water they received from the city was unfit to drink. Jordan,

Marsh, & Co. took the petition and carried it about, and obtained signatures in their place and about the city. Mr. Barnes, of the Hotel Brunswick, stated to me that I could not state the grievance too strong to the authorities, for the "water had not been fit to bathe in much of the time for a year on account of the odors which came from it."

Mr. GREENOUGH. — Did he say that he furnished his guests with spring-water to bathe in?

Dr. BARNES. — No, sir. He said he did not consider it fit to bathe in. The proprietors of all the hotels I saw about this petition signed it with but one exception, and they said they did not care a d—n about the water, as they sold rum, and not water.

It would hardly seem necessary to call your attention to the condition of the water-tanks at the tops of the houses in the city. I looked into many on Marlborough street, last winter, and found the bottom covered with a material — a sediment — of from two to two and a half inches deep. In the house I live in I found this material three-quarters of an inch deep in the bottom of the tank, and taking it out put it in a glass jar, and there is nothing I can compare it to for disgusting odor. Mr. Reed, of the Boston Ice Company, said to me that "his tank was filled to such an extent as to stop the flow of water, and that he was melting ice for drinking purposes, and had been doing so for months."

Then, in regard to associating the odors perceived here with the odors in Farm pond. I have passed that pond frequently and noticed that the stench was most disgusting, indicating that a large amount of decay was going on there. Mr. A. W. Brigham, at 14 Summer street, riding with me, said, "What a smell this is!" as we were passing Basin 3 on the north division of the Old Colony Railroad. Mr. W. G. Lewis, of Framingham, said "that at times he could not remain there, the smells were so bad." Mr. Pope, of Leominster, has also noticed the stench coming from Basin 3 and Farm pond during the past summer. I had a conversation with a plumber on the Back Bay, who said his business had increased five-fold in cleaning tanks, and he had been kept very busy indeed cleaning them out where the material had deposited. Dr. Oliver Wendell Holmes stated to me that he had not drank any city water for two years; and many people on the Back Bay stated the same thing.

I cannot think it mere sentiment which prompts people to buy spring-waters. I see four or five different companies busy furnishing the people with spring-water. No longer ago than this morning I happened to be in a neighboring house, and the lady said to me, "Isn't the water getting bad?" as she had noticed the smell from the hot water. Another person I met in the car on my way here said the same thing. There has not been a time this year when I have drawn hot water from the faucet in my house that there has not been a stench. It is not so bad at all times. Since I have returned to Boston this fall I have been compelled to buy spring-water, and it is getting to be something of a tax to add to that regularly collected in advance by the city.

Last August I visited Basin No. 3, in company with Dr. Baker of this city, and Prof. Rice of Annapolis, and some other gentlemen. We were surprised. Mr. Rice, not knowing the topography of the country, spoke of the smell long before we came in sight of the basin. We went to one of the gate-houses and lifted the traps, and there was a stench like that from a sewer. I do not know that I ought to speak of this, as it might injure the man in charge; but he said he was surprised that the people of Boston would drink such stuff; that he did not any more think of drinking it than anything in the world; and that he was constantly kept busy polishing the brass over these traps. This was the gate-house at Basin No. 3, and the time was last August, two months ago. Dr. Baker said he would not bathe in it, and a lady said she did not think it was fit to be used for washing. It was a time when the gates were raised for the water to be run into Farm pond.

It seems to me the trouble has arisen chiefly in this basin; and that its purification has been sadly neglected. Mr. Remsen reported it as smelling of the "pig pen," in his investigation, and that no *spongilla* has thus far been found there. I have given special attention to this basin, and it seemed obvious enough what was giving rise to the trouble there. Of course you all know the extensive territory flooded, in the soil and lands of which must necessarily have lived and died vegetable matter, which, decaying, would vitiate the water, as flowers do in a vase. About every year since the basin was built, there has been more or less complaint about the taste of the water. Before it was used — some seven years, I think — the water of Stony brook and Sudbury river was used by the city, through Farm pond and Lake Cochituate, without trouble; and it seems to me wrong to ascribe the water troubles to Farm pond, which I have known from my childhood to be pure and clean, as the bottom could be seen from many parts of the surface. I have boated there, and could see the clear rocks and sand several feet below the surface. In some parts it has a boggy or peat bottom; but I have never known the water discolored until the water from the basins was turned into it. It is not necessary to detain you by going into the question, investigated and reported upon so satisfactorily by Prof. Remsen, in relation to this pond; but to associate his report with what Mr. Hyatt stated at the meeting of the Natural History Society, last winter, "that the *animalcules* were the chief substance upon which *spongilla* lived," and the statement in "Griffith & Henfrey's Micrographic Dictionary," that *algæ* are the principal nourishment for the *spongilla*, for both are found in great numbers in Basin No. 3, and, conveyed to Farm pond, nourish the *spongilla*. Mr. Van Veet found the *spongilla* distributed in that part of Farm pond which Mr. Wightman said was the natural channel between the two gate-houses. He found it chiefly about the upper gate-house. The effect of building the channel around Farm pond, last winter, was simply to transfer the growth of the *spongilla* to the walls of the new conduit; for, in conversation, last June or July, with a man who had something to do with the cleaning out of the conduit, he said the walls were lined with *spongilla*, from South Framingham to Natick. You re-

member a complaint in the city last summer, some time in June, when Mayor Green visited the basins, and it was semi-officially stated that the trouble was somewhere between South Framingham and Boston.

I wish to say in regard to Farm pond, that you will find it in a different condition now from what I knew it to be before the Sudbury-river water was let into it. When the water was drawn off from that pond last winter I took pains to go around the basin and measure the depth of a fresh deposit of mud overlying the clean gravel. I found it about the banks of the new canal, varying in thickness from one to ten inches, and it seemed to be a fresh deposit, as it was filled with sticks, roots, blades of grass, and leaves. The peculiar condition of the banks of Basin No. 3 indicates this material was washed from them by the action of the waves taking in suspension this matter, and deposited in Farm pond. A great deal of it has been brought to Boston, rendering filtering so necessary, and to the tanks in our houses; at any time almost, we may hold up a glass of water and see it. I cannot see how it is possible for any one to contend that Farm pond could act otherwise than as a settling basin for the great amount of material taken up from the banks of the ponds above. There are many reports in the Boston City Documents ascribing the cause of bad water to the decay of vegetable matter. Westboro', which has had trouble with its water, has lately received a report from the engineer employed, to the effect that it comes from shallow flowage of farm lands, resulting in decaying vegetable matter. Springfield has had trouble with its water, and the investigation showed that it was from decayed vegetable matter. Spot pond gave trouble some years ago, and has often been spoken of as an anomalous case. Mr. Wilde, of the firm of Lawrence, Wilde, & Co., and a member of the Water Board having this pond in charge, stated to me that there was no question of the cause of the difficulty there. "In a dry summer the mud bed of the basin had been laid bare, vegetation had sprung up, and the overflowing of it and its consequent decay had caused the trouble." The Water Board removed this mud as soon as possible, and they have had no trouble since. The investigation in Westboro' was reported three or four weeks ago, and was published in the "Westboro' Chronotype."

Last summer the Committee on Water, and other members of the City Government, made their annual visit to the water works, and many of them noticed what were called *animalcules* in the water; but they, being viewed with the naked eye, ought to be called animals, from their size; and their presence certainly indicates impurity of the water. From twenty to thirty are said to have been seen in a single glass.

It seems to me the condition of the city water is not what it should be. The water-carts are going about the streets selling water at ten cents a gallon, which is the price of cider. The proprietor of the Everett spring water-cart, standing in Hamilton place, this summer, must have taken from thirty to forty dollars a day. And yet there was a fountain near by where the people might have city water for nothing.

You see I have imperfectly prepared this communication, from the limited time I have had. I should have preferred to present my views in writing, that they might have been in better form. Nothing further occurs to me to suggest now.

MR. BRADLEE. — Do you know any injury to health caused by the use of the water?

DR. BARNES. — I cannot say that I do. I do know that we had an unusual number of cases of typhoid fever last year. I do not know that the Board of Health assigns it to impure water; but last summer the number of cases of typhoid fever was unusual.

Q. As I understand you, you attribute the whole cause to Basin No. 3?

A. Well, sir, I think the same causes operate in Basin No. 2, but not so strongly, in consequence of its banks being steep and effectively washed down to the clear gravel. There are no shoals left bare in Basin No. 2, as is the case of Basin No. 3 when the water is a little low; and this basin has been treated entirely different from Basin No. 3. Last year the mud bed of Basin No. 3 was laid entirely bare, except the little stream that trickled through it. On the other hand, Basin No. 2 was drawn down, but it soon filled by the considerable water flowing in the Sudbury, and, consequently, this water was fair.

Q. Do you know any difference between the high and low service as to its character?

A. I cannot say positively that I do, but what information I have on the subject is, that the high-service, which comes from Lake Cochituate, is good enough, and that the low-service, or Sudbury river, is what is complained of.

Q. How do you account for the difference?

A. It is only a matter of opinion, but I think the reason is that one is from Lake Cochituate and the other from Sudbury river.

MR. BRADLEE. — I would like to ask the Water Board if that is a fact.

MR. CUTTER (Chairman of the Water Board). — It is not.

DR. BARNES. — Was it not so last year, when there was complaint?

MR. CUTTER. — When we drew the water off from Farm pond, and shut off the Sudbury river altogether, Lake Cochituate was used by both services.

MR. GREENOUGH. — Dr. Barnes, what is your remedy for this difficulty?

A. I do not claim to be an expert on this subject, but it seems to me to make those basins of the character of natural ponds would correct the whole matter. That can be accomplished by cleaning the banks and removing the mud. It is a question in my mind whether the mud in the deepest parts of Basin No. 3 is a cause of the trouble. It seems to me it is the material brought into the water by the action of the waves that gives rise to the trouble, and the growth of the *algæ* on the mud banks.

MR. BRADLEE. — You do not think there is anything radically unclean in the source of supply, do you?

Dr. BARNES. — From what I know of Sudbury river and Stony brook the water is good enough. The artificial changes made there have caused the trouble, and it further seems to me the drainage of Natick has not had much influence upon the water supply. Mr. Remsen found the water in Lake Cochituate good enough. Therefore, I do not feel that this basin is at fault. In fact, all summer Lake Cochituate has been clear, and you could look into it at considerable depth; whereas in Farm pond you could not look into it three inches.

Mr. SHEPARD. — Are you acquainted with the sources of supply of Sudbury river?

Dr. BARNES. — No, sir.

Q. Or where it rises?

A. No, sir. Most of my information comes from the reports of commissioners and committees on the subject. Mr. Davis said the Sudbury-river water was used for bleaching purposes for many years, and that it had unusual purity. He advised the city to take it in preference to the Charles, on account of its purity. You know it was debated at considerable length by the City Government, and it was taken on account of its freedom from impurities.

Q. Your own opinion is, that, if we would get rid of the *spon-gilla* and *algæ*, it must be done by making the basins as much like natural lakes as possible?

A. Yes, sir; I think it would. I think that the mud flats about Basin No. 3, where the crows have hovered for several years, and the unusual growth of mussels about Farm pond, show an unusual degree of impurity there.

Q. What was this deposit that you found in the bottom of your tank?

A. Well, it resembled, as nearly as possible, the material which I have in my bag here (showing it). These are some specimens I obtained from Farm pond when it was drawn down. They have been transferred from the original bottles, and have lost their original odor. I exhibited them to the Suffolk Medical Society, and all the gentlemen present will testify to their bad smell. This is material I took from the bed of Farm pond about three inches below the surface, which was the natural bed of the pond, but was overlaid in that particular locality by material having a certain amount of organic matter in it. These specimens contain roots, blades of grass, and other organic matter. They were taken from a little trench made to drain the new canal around Farm pond. From the presence of roots, grass, etc., I infer that it was a recent deposit. If it had been mud which had laid there for ages, we would not have found material of that character in it.

Mr. GREENOUGH. — You do not find the same material in the tanks in the city?

Dr. BARNES. — I found the same material under the microscope, but the particles were finer divided.

Dr. BLAKE. — Your chief objection to the water is its disagreeable taste, sight, and smell?

Dr. BARNES. — Yes, sir. The three senses condemn it.

Q. But it is not necessarily dangerous to health?

A. I should not pretend to give an opinion upon that matter. I only feel that those elements have no business in our water supply.

MR. GREENOUGH. — Have you looked over the whole supply of Basins Nos. 2 and 3?

A. I am tolerably familiar with them; not so familiar with No. 2 as with Farm pond, and Basins No. 1 and No. 3.

Q. There is considerable discoloring matter that comes into them from the river?

A. Yes, sir; in all brooks there is considerable discoloring matter, particularly at high water. But it seems to me, if those basins were used as settling basins instead of basins constantly taking up material, we would not have so much trouble in the city.

Q. Have you noticed any difference in the water in the basins?

A. I cannot say in regard to the color of Basin No. 2; but I am familiar with Basins 1, 3, and Farm pond.

Q. In your judgment, is the water darker after leaving Farm pond than when it comes in from Sudbury river?

A. No, sir. I only say the water of Sudbury river is naturally much darker than that of Farm pond and Stony brook, and at the present time the water of Farm pond resembles that of Basin No. 3.

Q. Now, it does not conform to my recollection of Farm pond that the bottom was covered with mud when it was drawn down last year?

A. Well, sir, on the side next to the Old Colony Railroad, where the shores were steeper, the material had not settled much, although there was some organic material mixed with the sand. But the canal cut through this deposit of mud all the way to the lower gate-house. About the lower gate-house there was a natural deposit of a very different character. The little ditches, dug to drain the canal, cut through this fresh mud from eight to ten inches; and over the entire surface there was a half to one or two inches of this material. That bottle, which is the third in size, contains but very little organic matter compared with the others. It is chiefly mixed with sand. That was taken from near the canal, on the opposite side from the Albany Railroad, near the upper gate-house. Near the Albany Railroad there was an old peat bog, which was covered with water.

MR. GREENOUGH. — As you go along from the Albany Railroad up towards the other gate-house, where the bed was all laid bare, from the impression left upon me by the appearance of the bottom, it was all sand.

A. Well, sir, that was all cut up by men walking over it, and in digging the canal they spread the fresh sand many yards on either side, so that the conditions I describe you would not find without looking for it, except as to the little ditches running towards the centre of the lake.

Q. There could not be a great quantity of deposit upon it, — such a deposit as that, for instance?

A. It was partially damp, and was trodden into the sand by several hundred men walking over it, which made a great deal of difference in its appearance; but there were places where they had not chanced to walk. I found this material ten inches under the surface. How could it be otherwise when such quantities of material have been washed from Basin No. 3, as you must have observed? Has it all gone to the bottom of Basin No. 3? No, sir; we find this loam on the bed of Farm pond and in our tanks in Boston. Farm pond is not capable of acting as a settling-basin for all the material.

Q. I should have thought there would be more from the appearance of the sand; there did not seem to me to be any large quantity deposited there.

A. I measured it with a rule. I could take up crusts, as some of it was frozen, and under it see the natural sand-bed of the pond. Farm pond must have had a hard bottom naturally, otherwise the *spongilla* could not have grown there; and yet Mr. Cutter has stated, time and again, that Farm pond had naturally a very muddy bottom. The *spongilla* is not found in Basin No. 3 because it has a natural mud-bed.

Dr. BLAKE. — Do you not think the drainage of sewage into Farm pond has something to do with it?

Dr. BARNES. — Farm pond drains a very small area. I do not think the drainage into it has anything to do with the trouble.

Q. You would not have anything drained into it?

A. No, sir; but I do not think there is any cause for trouble there of this character.

Q. Your idea is, then, that the new basins were called upon too soon, before the Water Board intended they should be, and that it carries away a great deal of this organic matter, in solution?

A. That is one of the errors, I think, among others.

Q. That is one of the principal ones?

A. It is one of the principal ones, I think.

Q. But you think it is used as a settling-basin, when it should not be?

A. No, sir; all the basins should act as settling-basins, and not throw the whole burden on Farm pond.

Mr. GREENOUGH. — You remember the taste we had last year was due to Farm pond solely?

Dr. BARNES. — Yes, sir.

Q. And digging the canal around it stopped that trouble?

A. Yes, sir; but as Mr. Remsen said, Basin No. 3 smelt of the pig-pen, and ought not to be used. It seems to me that, knowing this, the Water Board neglected its duty in not pushing the investigation further, and finding out if this was not the reason why *spongilla* grew so abundantly in Farm Pond, as Mr. Remsen hinted.

Q. Then you think the *spongilla* was the immediate cause? It has been found that the *algæ* are generated from the mud-flats. What you want the City of Boston to do is to take Basin No. 3 and fix it, and then you believe the trouble will come to an end?

A. I think it will take away the nourishment for the *spongilla*.

Dr. BLAKE. — You are not referring to specific cases, but to the general character of the water?

Dr. BARNES. — Yes, sir.

Q. We are now having a particular smell. Twenty years ago we had a smell compared to that of sardines. We have had trouble time and time again in regard to the water supply. We had it just as frequently as when we had Lake Cochituate alone for our supply. When we took Sudbury river we understood we were taking a highly-colored water, disagreeable perhaps, to look at, but not necessarily dangerous to health. Now, we have that water; but superadded to it we have what has rendered it disagreeable to taste, sight, and smell, and that water holding this organic matter in solution, — is not that it?

A. Yes, sir; that is it.

Q. And you have no particular reference to the *spongilla*, or any other impurities?

A. No, sir. I cannot add anything to the valuable report of Prof. Remsen, on this particular subject. It is only that somebody neglected to go far enough to show why that trouble should exist in Farm pond. I made a rough view of that section of Basin No. 3 as I knew it in the summer of 1881 (showing the sketch). Where the banks are steep the vegetable mould has entirely washed away; the water was drawn down to this line, as near as I could estimate it relatively, and the sods were lodged along on the flats, as indicated, partially disintegrated; you could see the waves taking those particles and carrying them away. Now, it does not seem possible for it to be otherwise than that much should be deposited in Farm pond.

Q. You speak of having been familiar with Farm pond in your youth. Do I understand that at one time the banks were largely of the same character as those of Basin No. 3 now?

A. No, sir, not within the memory of man. It is a natural pond, with clean banks, or was so until the water of Basin No. 3 was let into it.

Q. Is it a fact that natural ponds always remain pure, particularly when the supply is low? Do not the water-plants have some influence when decaying in the water?

A. I think they have some influence; but I do not think we should have occasion to complain of the city water if the banks were clean. I know a little pond in my native town where I could see the bottom in many parts. Three years ago I found *algæ* there, and tried to know why they had appeared. As the result of my inquiry I found that on one side the wood had been cut off and brush dumped into the water, and I attributed the growth of the *algæ* to the decay of that material.

Mr. SHEPARD. — Have you ever known *algæ* to appear in springs?

Dr. BARNES. — I understand they have, but I cannot say so from my own knowledge.

Q. What would you attribute them to there?

A. I think the decay of leaves might be a cause.

Mr. GREENOUGH. — Do you not think the *algæ* would appear in any stagnant water?

A. Not to such an extent as to make it so disgusting as our supply is.

Dr. BLAKE. — Then your remedy is to waste the water in Basin No. 3 and clean out the basin?

Dr. BARNES. — Yes, sir; but I would not waste the water. It was emptied last summer. One objection is, that the City of Boston has no right to go on there and clean it out. But it seems strange to me that the city cannot buy a right of way to go on there. It was estimated that it would cost \$2,000,000 to concrete the bottom. That is entirely unnecessary. I never heard of such a thing as concreting the bottom of storage-basins, except from Mr. Cutter.

Dr. BLAKE. — Mr. Bradlee, is it not a fact that the basin named after you had been a source of trouble, notwithstanding all the care and preparation in the bottom and sides, laying in solid masonry to the crown-point?

Mr. BRADLEE. — Yes, sir.

Dr. BARNES. — That is because it is supplied from other sources. It is not fair to attribute it to that basin.

Dr. BLAKE. — I should like to ask the member of the Water Board a question. I want to know, Mr. Cutter, to what extent Basin No. 3 was prepared; how much work was done in excavating the bottom and preparing the sides, and what is the average depth of the soil and sides? Or, perhaps, the Engineer can answer that question better.

Mr. CUTTER. — I think the Engineer can answer it better.

Dr. BLAKE. — Mr. Wightman, will you take the floor?

City Engineer WIGHTMAN. — I did not appear here as a witness, but simply as a listener.

Statement of H. M. WIGHTMAN, City Engineer.

Dr. BLAKE. — Mr. Wightman, I want to know how much work was done under your supervision in preparing Basin No. 3, and removing loam and decayed wood, trees, and bushes, etc.?

Mr. WIGHTMAN. — At that time I did not have charge of that work except incidentally, being the Assistant Engineer. But the shores of the pond were stripped to the water-line, and some distance below it. The trees were cut off from the bottom, and the bottom was practically left as any other flooded country would be. That has been the usual way of preparing those basins, except distributing basins, which are usually cleaned out and walled up with stone. For instance, Chestnut-Hill Reservoir cost, with the driveway, \$1,640,000. Those two basins are about 123½ acres only — I don't remember the exact number of acres. But if you did the same amount of work in the preparation of these basins, you can see that a million dollars would be a pretty small amount, and in preparing that kind of a basin it has not been customary to spend that amount of money on it. Of course there is a certain amount of vegetation in the bottoms of reservoirs, which must, to a certain extent, decay, and a basin should not be used for two or three years after it is filled. But it is not considered among engineers that the advantage of increased purity of water to be derived from the taking out of the bottoms of reservoirs

is sufficient. The vegetation in the bottom was burned before the basin was flooded. All the vegetation was got into piles and burned, and after that it was flooded. That is all that was done to it.

Q. What was done in addition to that in Basin No. 2?

A. Nothing; just the same thing there.

Q. So the basins are substantially the same, and the land was substantially the same in character?

A. Yes, sir.

Q. It had been used for farming and agricultural purposes?

A. Yes, sir. In Basin No. 3 the mud-line was six to eight feet deep, and in Basin 2 it was eight to ten feet deep. I have plans in my office showing the character of the soil. We contemplate moving a part of the loam for the Park Commissioners for the new park.

Dr. BARNES. — Is not the new basin, No. 4, being cleaned of the vegetable matter?

Mr. WIGHTMAN. — Yes, sir, the surface of it is being cleaned.

Q. Then why is it necessary to clean that, it being a storage-basin, when you do not think it necessary to clean Basin 3?

A. I believe I did not give an opinion about the necessity for it.

Q. Somebody deems it necessary?

A. The Park Commissioners want about 100,000 loads of loam, and we are taking it out.

Mr. GREENOUGH. — I can tell you about that. Somebody got up in the Council — I believe it was Mr. Whitmore, of Ward 12 — and wanted to know what it would cost to take the loam off, and was told it would cost about \$40,000; and Mr. Whitmore said he would like to have the amount put in for that purpose, and it was put in.

Mr. BARNES. — I should like to know why its estimated cost is only \$40,000, when it is estimated that a million dollars will go but a little way in cleaning other basins.

Mr. GREENOUGH. — It was put in by the City Council; but it did not come in recommended by the Water Board or the City Engineer.

Mr. WIGHTMAN. — I made an estimate of the amount of loam we could take out of Basin No. 4 which would be necessary for park purposes. I made that statement when the estimate was made, and I calculated that the Park Commissioners would pay for it. Of course, as the City Council made this appropriation of \$40,000, so far as that amount goes it will be used, and the rest will be paid by the Park Commissioners.

Q. All you are talking about is the surface?

A. Yes, sir. If we should take out all the loam, allowing that we took out 500,000 yards, at the very smallest sum, fifty to seventy-five cents per yard, it would cost \$250,000.

Dr. BLAKE. — Has it no value as a fertilizer?

Mr. WIGHTMAN. — None at all. It would cost \$250,000 to take it out, and the whole cost of the basin is \$394,000, I think.

Q. Is the average depth of the water in Basin No. 3 less than in any other basin?

A. No, sir ; it is more. It is the deepest basin we have.

Q. Was it drawn upon more than any other basin during the past summer?

A. No, we always draw from Basin No. 2, because it is on the main river, and because it fills the quickest. We have been drawing from Basin No. 3, I should think, about two months and more.

Q. Had you the same amount of margin exposed in Basin No. 2 as in Basin No. 3?

A. The whole bottom of Basin No. 2 has been practically empty, you know. I believe I have seen Mr. Nevins' teams taking mud from the bottom. I suppose he thought it was some value to him. I noticed that the bottom was practically dry. I guess I have seen twenty or thirty teams there.

Dr. BARNES. — Were there any mud flats to be exposed in drawing from Basin No. 2?

Mr. WIGHTMAN. — If you draw it down, it is all mud flats.

Q. If you draw five or six feet, would there be any?

A. I do not know. I could not tell you without looking at the plan.

Q. Then, if you draw down Basin No. 3, what would be the effect?

A. I do not think we would draw down more flats than in Basin No. 2, in proportion to the area of the basin. The area of Basin No. 2 is considerably less than in Basin No. 3. Basins No. 2 and 1 contain more shallow flowage than any other basins. In proportion to their areas they have the largest shallow flowage.

Q. Are not the banks of Basin No. 2 steeper than those of Basin No. 3?

A. I do not think the average to be.

Dr. BLAKE. — Dr. Barnes, you are pretty familiar with that country?

Dr. BARNES. — I have lived there, and know something about it.

Q. Were you familiar with the site of Basin No. 3 before it was used for storage purposes?

A. Yes, sir.

Q. Did it differ materially from Basin No. 2?

A. Yes, sir.

Q. In what respects?

A. In the steepness of its banks and shallow flowage, particularly north of the Old Colony Railroad. On the side of the railroad the water is much deeper, and that is the reason Mr. Wightman is able to make such a statement about the average as compared with the others. On the north side of the railroad there are those mud flats, which have emitted such offensive odors, — not so bad, perhaps, this summer, for it has been treated differently than in the summer of 1881, when, on account of the limited amount of water flowing in Stony brook, it was laid bare early in the season. At that time the citizens of Framingham complained of the bad odors, which Mr. Remsen said was the smell of the pig-pen.

Q. Have you any experience as to the methods of purification of water? Do you believe in any of the systems of filtering?

A. Well, sir, I observed something at Basin No. 3 which might

possibly be utilized ; I speak of it only as a suggestion. The dam of Basin No. 3 is laid on a quicksand ; and, in consequence of that, there is a leak, which I have seen estimated at half a million gallons a day. The water coming from the basin under the dam is perfectly clear, and the man at the gate-house said it was always good in taste. While on the other side, in the basin, the water was perfectly filthy, and had these offensive smells coming up through the gate-house. It is a question whether that quicksand is not acting satisfactorily as a filter. The water had not the color, smell, and taste which the disgusting water on the other side had.

There is one matter I have omitted. I have looked in vain for the report of the Water Board, which ought to have been presented last May, that I might know what disposition was made of the water of Farm pond, when Mr. Remsen recommended it should be wasted ; and, if it be proper, I should like to ask the members of the Water Board that question.

Mr. CUTTER. — The water was drawn into Chestnut-Hill Reservoir so far as it would hold it, and the rest was wasted in the waste-weirs on the conduit.

Dr. BARNES. — How many of these waste places were open ?

Mr. CUTTER. — I do not know as I can say. Perhaps Mr. Wightman can tell you that. The Water Board authorized the Engineer to draw the water down and construct that canal.

Dr. BARNES. — I ask this question in order that we may have some official utterance as to what became of it. You know the citizens of Boston were informed that the water was stored in Chestnut-Hill Reservoir, and purified there. There is another report that it was wasted in another direction, and, in consequence of the possible complaint of a certain city, the Water Board kept this matter a secret. I visited Farm pond several times while it was being drawn off. Dug meadow (a part of Lake Cochituate) was entirely empty when they began to draw down Farm pond. During the two weeks required to draw it off this meadow was entirely filled, and there was no material amount of rain to fill it. Mr. Lewis and myself were entirely of the conviction, that the water of Farm pond was filling the meadow, and had conversation to this effect at the time. But not being satisfied with that evidence I walked over the conduit (from South Framingham to Natick), and came across a farmer, who stated, in the presence of a witness, that the gates were open on the new conduit, and the water of Farm pond went into Lake Cochituate, and was mixed with that water.

Mr. CUTTER. — I do not think the Water Board would take that water and turn it into Lake Cochituate. Not one particle of it went into it.

Q. Then tell me how Dug meadow was filled to overflowing within those two weeks ?

A. We have a horse-shoe dam there, and we keep the water flowing over it.

Q. There was not any amount of water in this basin previous to the drawing down of Farm pond ?

A. I was there at the time, and I can tell you that none of the Farm-pond water went into Lake Cochituate.

Q. Can you tell me what became of the waste water of Farm pond?

A. I cannot tell you that.

Q. I can produce a witness,—Mr. Lewis,— who is willing to testify to you that this meadow was filled in two weeks. Besides, there is another man who said he saw the gates open, and saw the water running there. It seems to me it is an important matter for the Commission to inquire into. Mr. Lewis has authorized me to use his name.

A. What Mr. Lewis is this?

Q. I do not know his first name. I will give it to the Commission, and I will give them the name of the farmer. This farmer made the statement in the presence of a reporter of one of the Boston newspapers. Several other gentlemen on the Albany Railroad observed this same thing; but I cannot point them out to you, or get them to come here.

Dr. BLAKE. — Have you any remedy to suggest? Here we have a water supply, with a rapidly growing demand, having sources of pollution. The demand is for an increased supply. Have you any suggestions?

Dr. BARNES. — Yes, sir; there have been opportunities offered to do a considerable amount of work on Basins Nos. 2 and 3, cleaning out the shallow portions of those flats which smell so badly in hot weather. It seems to me there have been good opportunities for inexpensive work, and that much could be accomplished in correcting our difficulties.

Q. That is, on the general subject of the unpleasant character of the water? For special unpleasantnesses we shall have to seek for special remedies.

A. Yes, sir; I think the drainage of Natick into Pegan meadow must operate as an objectionable feature, although Mr. Remsen found the water in the main lake in good enough condition. Prof. Edes, of New Jersey, who examined the supply pretty patiently one year ago, said he should consider it a misfortune for all the blame to be laid to the *spongilla*, as he found it abounding in organic matter seventy per cent. above the limit of health.

Q. I guess his estimate was a little wild.

A. No, sir; from Mr. Remsen's estimate of the organic matter in some of this water I do not think his estimate was wild. I believe that 0.15 parts of albuminoid ammonia per million should condemn a water absolutely, and Mr. Remsen's analysis showed that Farm pond had 0.404; Basin No. 2, 0.29; Basin No. 1, 0.34; Basin No. 3, 0.54; Pegan meadows, 0.63.

Mr. GREENOUGH. — Mr. Wightman, I suppose you are more familiar with the running off of that water than the Water Board are?

Mr. WIGHTMAN. — I suppose I am. It was drawn off under my direction. The Chestnut-Hill Reservoir was filled with it, and not one drop went into Lake Cochituate, nor was the waste-gate open at any time.

Q. What was this meadow?

A. I do not know what he means by this meadow. In the part

between the central turnpike and what is called Spear street, some three years ago, we put in a dam so as to keep those meadows flooded, and at the same time we put in that dam at the Natick meadows at the mouth of Pegan brook, and from that day to this the water has never been drawn off from those meadows. Even when we were short of water, when we were trying so hard to give the citizens of Boston pure water, during the period of bad water, I asked Dr. Remsen if he thought it would be safe to let that water on; and he said I had better keep it out. There never has been a drop of that water run in there, except simply what was kept there by the dam.

Q. It was not?

Mr. WIGHTMAN. — I know it did not. In spite of the testimony of the farmer and anybody else that saw it, — and I do not take the intelligent farmer's testimony — I do not think anybody saw it.

Dr. BLAKE. — Can you give me an estimate of the number of gallons of sewage that run into Pegan brook daily?

A. No, sir, I could not. Of course there is only a small portion of the town of Natick that drains into it; but just what the proportion is I cannot tell you.

Q. It must be many thousand gallons?

A. Not so many thousand. The brook always carries much water. Sometimes after a rainfall it would run a million to a million and a half gallons a day. But in a low rainfall there is comparatively nothing runs into it, and in such times there would perhaps two-thirds or half of what was running be sewage. I do not think it could be a hundred thousand gallons a day. It may be anywhere from one to three hundred thousand gallons a day of contaminated water, and the probabilities are that not over half of the hundred and fifty thousand gallons a day would be sewage.

Q. But you think 150,000 gallons of sewage runs from Pegan brook into Lake Cochituate daily?

A. I should not want to say that.

Q. That is what you said.

A. I said perhaps it might.

Q. I suppose there was a million gallons a day the day we were there.

A. I said the day you were there it might be half a million to three-quarters of a million gallons running into the brook that day. You saw that the water was quite highly colored.

Q. Yes, and annoyingly offensive. It is a smell that is in harmony with the contents of the brook.

A. I should not want to give you an opinion without looking up the facts. They are out of my mind, and this is making a rather random statement.

Q. I am more concerned about the healthfulness of this water supply. I cannot see how any authority will submit to the drainage of the towns Natick, Framingham, and Westboro' into its water supply. There are three sources of pollution which are dangerous to health. Although Prof. Remsen may say the water is all right in the city, it is not by any means conclusive that it is free from danger. I think that, under certain circumstances and in certain

seasons, it is inevitable. But we are to avert the possible dangers. I want an estimate of this.

A. I shall be happy to furnish the Commission with an estimate. That matter has been looked into once, but I do not think there has been an estimate made of the quantity. The number and causes of pollution have been looked up, but nothing said about quantity.

Dr. BARNES. — Will Mr. Wightman state to the Commission what became of that water?

Mr. WIGHTMAN. — The Commissioners know what I did with the water; and I decline to state it.

Q. Then it becomes a question of veracity between Mr. Wightman and myself?

A. I do not see what that has got to do with it. That is hardly a question of veracity. It is something you do not know anything about and I do.

Q. There are gentlemen who saw the water running in there, and I saw the meadow fill during the time Farm pond was being drawn down.

A. I should like to have you produce them, and put them under oath.

Q. I will take the oath myself.

A. I have no doubt you would.

Dr. BLAKE. — Dr. Barnes, do you know anything about the rapidity of the growth of the *spongilla*?

Dr. BARNES. — No, sir, I do not. I refer you to Prof. Hyatt.

Q. I only want to know whether, by the carrying of the germs into these meadows, it would grow sufficiently to become offensive in a year?

A. It was reported early this year that the *spongilla* had appeared at the old conduit from Lake Cochituate; and, knowing this, I attribute its presence there at that time to the carrying of the egg into the lake.

Q. What time of the year was Farm pond drawn off?

A. I think it was the last of November. I have not the exact dates.

Q. When did Prof. Remsen make his investigation?

A. About that time.

Q. During that time the *spongilla* was found in the old conduit?

A. No, sir. Prof. Remsen went home and telegraphed to Boston to waste the water of Farm pond, which I claim went into Lake Cochituate. The *spongilla* was reported to have made its appearance in Lake Cochituate in the following January.

Q. Would it be likely to grow in cold weather to the extent or amount it was found in the old conduit?

A. I cannot say as to that. I only offer that as a suggestion. The new conduit was found lined with this material last June or July, or about that time, so that about one hundred men were employed to scrape that material off, and men told me it smelt terribly.

Mr. WIGHTMAN. — There is one statement the doctor made about the taste of Lake Cochituate: Long before Farm pond had been shut off, Lake Cochituate had been shut off because it had a bad taste in it, and the Water Board records will show it.

The CHAIRMAN. — Has any other gentleman here any further information to give the Commission on this subject?

Dr. BARNES. — The parties who have the water in charge, where Farm-pond water is said to have gone, state that it is perfectly ridiculous to say it run into that source; and that it is no such thing, for they would not dare do such a thing as that, and pollute the water of another city.

Mr. BRADLEE. — Where do you suppose it was stated to us it did go?

Dr. BARNES. — I think I know of that matter, in view of it having been told me by two or three, and if you wish to know I should prefer to state it privately, because it is a matter that perhaps ought not to go into the public prints. I presume it is the same information you have as to where it did go. I am speaking of the waste water from Farm pond.

Mr. BRADLEE. — Do the Water Board object to his stating where it went?

Mr. CUTTER. — No, sir.

Dr. BARNES. — Well, it was stated to me by two parties in the City Government that it was wasted chiefly into Charles river, and it was kept secret at the time on account of the city of Newton taking its supply below the point of waste. They were afraid the citizens of Newton would complain of it. Now, from the engineer of Newton I hear that it is perfectly ridiculous to state that it went there. I wanted to get from the Water Board where it did go, but not having an official report from them it seemed proper to make the inquiry here.

Mr. SHEPARD. — What is the name of the engineer of the city of Newton?

Dr. BARNES. — I do not know. I will get you his name.

Mr. GREENOUGH. — What connection has that with this matter?

Dr. BARNES. — The only connection it has is to ascertain whether the City Government have been deceived about that matter.

Dr. BLAKE. — Were you aware that Lake Cochituate was shut off for two or three months?

Dr. BARNES. — I was aware of it, but I do not think it has anything to do with the subject. The Water Board made a statement that they found *spongilla* in the lake, and were going to shut it off about the first of January last.

Mr. GREENOUGH. — The *spongilla* had been there before this water was shut off?

Dr. BARNES. — But you used it from November to January, and up to that time it was good, as Mr. Remsen's report shows.

Q. But before that it had been shut off on account of the fishy taste?

A. What I claim is, that between the time Farm pond was drawn off and January the water in Lake Cochituate was used, and at that time the egg of the *spongilla* was being carried from Farm pond to the old conduit. Mr. Cutter's statement that it has not been shut off for five months is not relative to the matter at all.

The CHAIRMAN. — Is there any other testimony you would like to bring before the Commission?

Dr. BARNES. — No, sir. If you think it desirable to go into those matters I can give you the names of those gentlemen. I think there is no positive evidence of the Natick sewage vitiating the main part of Lake Cochituate, although I object to it as much as any man.

Mr. SHEPARD. — I should think the doctor could give us the names of the parties.

Dr. BARNES. — I will send you the names of the farmer and the representative of the newspaper. There is also Mr. Lewis. I am willing to swear the bottom of Dug meadow was laid bare previous to the emptying of Farm pond.

Mr. CUTTER. — You say the germ of the *spongilla* in the old conduit was produced by letting the Farm-pond water into Lake Cochituate?

Dr. BARNES. — No, sir, I say it is a suggestion worth inquiring into by the Commission.

Q. I should like to ask you how long it takes the *spongilla* to grow. The facts of the case are that the *spongilla* has been growing in the old conduit for many years, and we did not know what it was until Prof. Remsen told us. Then we shut off the old conduit and cleaned out this *spongilla* and found nearly a bushel-basketful for every square yard.

A. I think that before you were a member of the Water Board the *spongilla* had been found in the water.

Q. I beg pardon; we have cleaned out the conduit every year, but during the construction of the new supply the old conduit was not cleaned out on account of the pressure upon it.

A. I know Mr. Wiggin reported, in 1872 or '73, that the wall of the old conduit was lined with a substance resembling sponge. Of course you know better than I do about how many times we have had trouble, and about how often it has appeared there.

Adjourned to Monday next, 9th inst., at 10 A.M.

SECOND HEARING.

MONDAY, Oct. 9, 1882.

The commission met at 10 A.M. All present except Mr. Greenough.

Dr. BARNES. — Before the hearing begins, I should like to correct a little of my testimony at the previous meeting as to the engineer's statement at Newton. I was misinformed by a second party — the engineer. Instead of saying, as I testified, that it was impossible for the Boston water to go into Charles river, he said it was impossible to vitiate the water by so doing, in consequence of a large embankment separating the river from the basin, and he might not have known of it if the water had gone that way.

In relation to the testimony of Mr. Reed, he made a statement to me about a year ago, and it was not the water-tank that was plugged, but his main supply-pipe; and he found it filled with a sediment caught by a filter, and was obliged to take the filter off.

I have asked some gentlemen to come here this morning, and quite a number said they would be present. Mr. Lewis, to whom I referred at a previous meeting, has made his appearance, and I should like to ask him to give such evidence before your Commission as he may be possessed of.

City Engineer WIGHTMAN. — Before this hearing goes on, I wish to make one correction. I told the Commission the basins were stripped around the edges. I was not in charge of the work at the time it was done. Mr. Davis had charge of it. They did strip a piece of it, as I said, but after that the edges were not stripped. I wish to make a correction of that statement. They were none of them stripped except Basin No. 1. That was more or less taken off by parties who wanted the loam; but there was no systematic stripping of the pond as the work was originally laid out to be done.

Dr. BLAKE. — Why was that omitted?

A. I cannot give you the information. Probably the reason was that they needed the water so badly they could not stop to do the work.

Q. Could it be done now?

A. Yes, sir; whenever the basins are drawn down. But nature has done that.

STATEMENT OF WILLIAM G. LEWIS.

Dr. BARNES. — You reside in Framingham?

Mr. LEWIS. — Yes, sir.

Q. How long have you resided there?

A. Thirty-two years.

Q. Familiar with the water works about there?

A. Yes, sir.

Q. Ride over the Albany railroad?

A. Yes, sir; every day.

Q. Were you riding about there during the period of the drawing off of Farm pond last year?

A. Yes, sir.

Q. Were you familiar with the condition of Dug meadow previous to the drawing off of the pond?

A. I was.

Q. What was the condition of the basin?

A. The water from Farm pond run through the conduit in the edge of Sherburne, down into Lake Cochituate through Dug meadow.

Q. Do you remember a conversation with me at that time?

A. I do, sir.

Q. Do you remember as to our observing what the condition of Farm pond was before the water began to be used by the city?

A. It was good water, — better than Lake Cochituate, I thought.

Q. Was there much water in Dug meadow before the water began to run there?

A. There was not much water in Dug meadow, previous to drawing off Farm pond.

Q. During the period that it required to draw off the pond (about two weeks) did it fill and overflow the horse-shoe dam?

A. Yes, sir; it filled from some source.

Q. Do you remember a discussion with me about that time?

A. I do.

Q. Was that practically the discussion?

A. I think I told you I had seen the flow of the water running through from the conduit from the Hayes place, through that meadow. It ran down the full stream.

Mr. BRADLEE. — Could you give the dates?

A. No; I could not, sir. I only know it was at the time Farm pond was being emptied.

Q. What means have you of fixing the date?

A. None whatever; only the time it was drawn for the purpose of carrying the spongy water and filth out of the pond, as I understood afterwards. They dug a ditch on the west side of Farm pond, and let the water run down that way after they emptied it. I think it was last year. Time passes so quickly; but I am sure it was.

Q. But you have no means of fixing the exact date?

A. No, sir.

Q. Are you certain it was filled during the period of drawing off Farm pond?

A. I should say certainly it was.

Dr. BARNES. — That was the time of our conversation?

A. That was the time my attention was directed to it. We had some conversation, and I told you what was the status of the case. I saw the water running in there, and the pond being filled up.

Q. Do you know anything about the condition of Basin No. 3 for the past two years?

A. I do, sir.

Q. Has it been offensive?

A. It has been very filthy and offensive all the hot weather.

Q. Do your cows pasture in the vicinity of it?

A. They do.

Q. Do they drink the water?

A. Where they have immediate access is in Basin No. 1; but the other basin, No. 3, is just above there. The stench comes down just below my house.

Q. Have there been complaints in Framingham about the stench?

A. Yes, sir; so much so we drove around to avoid it. We went around north-westerly, and when we turned around by the turnpike we found it about the place of Ellis.

Q. Were you there at the time of the construction of Basin No. 3?

A. I was.

Q. How much work was done upon the banks by way of cleaning them?

A. The south-easterly part, where the gate-house is, and from the Boston and Worcester turnpike, extending southerly around to Mr. Homer's place, some of the material was taken away; but on the northern and north-western side, none of it was touched at all. The same surface is there now that was then, to all intents and purposes.

Q. Is there anything there now?

A. There is filth there now where the basin is not filled up.

Q. Is it offensive to the smell, or has it been during the past season?

A. It has; very much so.

Dr. BARNES. — I think that is all I wish to ask Mr. Lewis. I had intended to question him further in regard to the stripping of those basins; but, as Mr. Wightman has withdrawn his first statement, that is not necessary.

Dr. BLAKE. — You are quite positive the water from Farm pond went into Dug meadow?

Mr. LEWIS. — Yes, sir; I know it.

Q. How do you know it?

A. I was interested, but not pecuniarily, in the progress of a suit against the city by the Hayes place, and I passed by there and saw it, and absolutely saw the water running in there, — a very large stream. The time I saw it, I think, was Sunday.

Q. That was the only one time?

A. I cannot fix the time.

Mr. BRADLEE. — Do you know where the connection between Sudbury river and Farm pond is?

A. Yes, sir.

Q. Can you tell us where it is?

A. If the man's name is Hayes, in Sherburne, the conduit passes through his place, and just before you pass his place south-westerly on the conduit is a structure. I think it is the gate-house, or vent, or something or another, — a small thing. It is beyond the Women's Prison, just before you turn off into the road.

Q. That conduit to Dug meadow?

A. Yes, sir; it runs through there. Dug meadow and Cochituate are virtually one thing. If the water goes from Dug meadow first it goes to Cochituate; but it doesn't run from Cochituate to Dug pond, because that is practically higher.

Mr. BRADLEE. — Mr. Wightman, has the entrance to the lake been altered since I was on the Board?

Mr. WIGHTMAN. — No, sir.

Mr. BRADLEE. — I wish you would state to my associates here the connection.

Mr. WIGHTMAN. — There is no connection between Sudbury river and Dug pond.

Mr. LEWIS. — I don't say there was. Farm pond entered the new conduit, and the conduit entered into Lake Cochituate by this Mr. Hayes' place. Sudbury river was never turned in there.

Mr. BRADLEE. — That is the question I asked you.

Mr. LEWIS. — Then I misunderstood you. It isn't within a mile of Sudbury river, the nearest point.

Dr. BARNES. — Here is a little diagram. Perhaps Mr. Lewis can explain the situation.

[Dr. Barnes explained the diagram.]

Dr. BLAKE. — Are we to understand it was a conversation after the water had run a certain point and had overflowed its limits there?

Mr. LEWIS. — No, sir; it was the conduit being emptied there in that way. I don't know how long a time it was running there.

[Mr. Lewis took a map of the locality, and explained the location of the several points referred to.]

Dr. BLAKE. — It wasn't running through any prepared channel?

Mr. LEWIS. — Yes, sir; there is a regular channel, — a prepared canal.

Dr. BARNES. — That channel was dug to keep Lake Cochituate full, and was used as a means of keeping Lake Cochituate full, before the new basins were furnished.

Dr. BLAKE. — The water runs from here into Dug meadow, and mixes with the water of Lake Cochituate?

Mr. LEWIS. — Yes, sir; and I saw that canal full.

Dr. BARNES. — Mr. Edwards heard something of the statements made to me by Mr. Haynes, in reference to the water running into that channel. I asked him to come in here and state what he heard, if he will please do so.

STATEMENT OF E. E. EDWARDS.

Mr. EDWARDS. — We followed the course of the new conduit from Framingham; and when we came to the gate-house, near the Hayes place, we saw there was a possible connection with the stream that ran at right angles with the conduit. We made inquiries of this Mr. Hayes, and he said that in former times the water did flow through his land, and sometimes overflowed it largely. He also spoke at this time of the draining of Farm pond, when the water went through in larger volume than previously; and it was his belief that the water was drained into Dug meadow.

Dr. BLAKE. — Did you take pains to verify his statement? Do you know it to be true?

Mr. EDWARDS. — No; I don't know anything about it. I only know, from the way it was situated, that there was a stream running at right angles in the direction of Dug meadow.

Q. Do you know that the water of Farm pond was running into Dug meadow?

A. I know nothing about it whatever.

Q. Then what did you come here for?

A. I came here to report this hearing for the *Transcript*.

Dr. BARNES. — But I wished to have him state the conversation with Mr. Hayes.

Dr. BLAKE. — I supposed you wanted him to testify to a fact.

Mr. EDWARDS. — I don't know anything about it.

STATEMENT OF HOWARD MARSTON.

Dr. BARNES. — Mr. Marston, are you buying spring water?

Mr. MARSTON. — Yes, sir.

Q. Have you been buying it for any period of time?

A. Since the 20th day of last June.

Q. Why have you been buying it?

A. Because there is so much complaint about the other drinking-water — the Cochituate.

Dr. BLAKE. — Is there very much complaint when you use ice in pretty good quantity?

A. Yes, sir; I think as much from the color, perhaps, as the taste.

Q. Well, isn't the color pretty well diluted in using the ice copiously in the water? Take melted ice, — Cochituate cannot color that?

A. It does color it very perceptibly. There is a difference in the color.

Q. Any of your customers complained of being made sick by the water?

A. No, sir; I don't think they have.

Q. Would you be willing to state how much the purchasing of spring water has cost you in your business in addition to your regular water-tax?

A. Yes, sir.

Q. How much?

A. We use about three barrels a day, at half a dollar a barrel.

Dr. BARNES. — Mr. Lewis Coleman has sent a representative here from Lewis Coleman & Co.

STATEMENT OF B. F. HATCH.

Dr. BARNES. — Has your house been buying drinking-water?

Mr. HATCH. — Yes, sir; we have, this summer.

Q. By what process do you get the water? Describe how you get it, and where you get it.

A. Well, we had been using the Cochituate water until about the 1st of June. Last year we got through the summer with Cochituate water. We didn't buy any for use in the store. We have about fifty to sixty men in the store, who drink water, besides our customers. We have a great many customers. But individuals bought water. It was brought in jugs. But this year the water was so bad we concluded to buy water for the whole store. We have been buying fifteen gallons a day from the Belmont Hill Company at three cents a gallon at Everett. The water at our store has tasted very badly indeed. It has tasted very much as stagnant water in the country in the ponds, that you very often see, where weeds are growing. It has tasted so much so that we could not drink it, and could not offer it to our customers.

Dr. BARNES. — I have promises from other gentlemen to be present at this hearing, and Dr. Beach asked me to ask the chair-

man to have an adjournment, as he knew people who wanted to come here and testify.

The CHAIRMAN. — If Dr. Barnes will give way one moment, as this question of how the water was let out of Farm pond is before us, I would like to call on Mr. Desmond Fitzgerald.

STATEMENT OF DESMOND FITZGERALD.

The CHAIRMAN. — Mr. Fitzgerald, you have heard the statements about how the water was let off.

Mr. FITZGERALD. — Yes, sir ; I have heard them.

Q. Have you the facts in the case?

A. Yes, sir. Dr. Barnes never has come to me for the facts, or I should have given them to him before. We have nothing to conceal about it. We keep very accurate memoranda of the time we open these gates, and the quantity that passes out. I suppose our records are the most complete of any system of water works in the country ; and if Dr. Barnes had come to us for them he could have ascertained where the water ran, and where it came from. We began to run water from Farm pond on Nov. 15, 1881, at one o'clock in the morning, and we ran it until December 2d, when the water was shut off. Not a drop of that water which came from Farm pond was run into Cochituate in any way.

Dr. BARNES. — Was it run into Dug meadow?

A. No, sir ; not a drop of it run in there. I can give you the exact quantity, — a hundred and ninety-one million four hundred thousand gallons. We didn't open the gates ; the man in charge of the gates I always give instructions, as soon as he opens the gates, to keep an exact memorandum of the time he opens the gate, and the time he keeps it open ; and here I have the original memorandum. Besides, we have our official records showing the exact amount of water that ran out, and what was done with it. Not a gallon of that water was wasted from Farm pond into Lake Cochituate.

Q. Was it wasted into the basin connecting with Lake Cochituate?

A. No, sir ; I am not trying to dodge the question.

Dr. BLAKE. — Did it either directly or indirectly?

A. No, sir ; neither directly nor indirectly.

Q. Are there not gates to connect the new conduit with Dug meadow?

A. Why, certainly ; but the gates were not open. There is a way it can go ; but it wasn't run that way. Now, I think I can explain what seems to be a contradiction of testimony here. After the canal around Farm pond was completed, we ran water from Basin No. 1 around through that canal, — perfectly good water, — into Lake Cochituate, because we had a break on Basin No. 1. In order to repair it we had to draw the water from Basin No. 1. If anybody saw water running there, it was after Dec. 5, 1881.

Q. And you had finished emptying the pond on December 2d?

A. Yes, sir ; and at twelve o'clock noon the flow was stopped.

I do not think there is any intention on the part of anybody connected with the water works to conceal what we did. We never refused to give any information as to what was done with the water.

Q. Well, the trouble has been that these gentlemen who come here to testify — Dr. Barnes and Mr. Lewis — were not aware of the fact you have stated; and they naturally supposed this water was from Farm pond.

A. But they should know the date. It was after December 5th.

Dr. BLAKE. — They didn't know about the dates.

Dr. BARNES. — I knew the dates. I knew when Farm pond was drawn off, and when it was stopped. I made a note of it, and have the notes at home in a note-book which I made at the time.

Mr. FITZGERALD. — I don't think it would be possible to find anybody to testify that the water was running out into the Sudbury aqueduct between December 5th and 15th.

Dr. BARNES. — I don't know that it is necessary for me to pursue the subject further. I am not here as a prosecuting attorney. I am only interested in getting good water for the city of Boston, and only suggested this thing for you to ferret out.

Dr. BLAKE. — I think it is for the Commission to find, when the Doctor makes a positive statement that diluted water is mixed with the water supply, whether it is true or not. Now, if the Doctor can substantiate his statement by dates, he ought to do so. This gentleman, who is in charge of the water, denies it in the most positive and emphatic manner.

Dr. BARNES. — I understand that. Mr. Wightman says the basin was kept full all the time; and now this witness comes here and says no water had run in that direction.

Mr. WIGHTMAN. — I made no such statement, that there was no water run over that dam. The statement I made was that no water from Farm pond ran over it. I said the water wasn't drawn off the meadows, and never was during all that year; and that year —

Dr. BARNES. — I hope, gentlemen, you will ascertain from people who live in the vicinity of that meadow.

Mr. WIGHTMAN. — Mr. Fitzgerald can testify as to that.

Mr. FITZGERALD. — I will take my oath. In order to make our account come out we have to keep an exact account of every gallon of water that goes into our basins, and where it goes. We have a most accurate way of measuring that water. There were one hundred and ninety-one million four hundred thousand gallons. When we began to draw Farm pond down, on November 17th, the level of Farm pond was 145.96 above tide level. We drew it down to December 2d, but didn't lower the pond after November 30th, and the elevation was 142.17. That was the lowest Farm pond got. Not a drop of that water was in any way, shape, or manner run into Lake Cochituate.

Dr. BLAKE. — I would like to have Dr. Barnes satisfied on this subject.

Dr. BARNES. — I made a note of it at the time.

Mr. BRADLEE. — Are you sure of it?

Dr. BARNES.—Yes, sir. I am familiar with it.

Q. Is Mr. Lewis sure about it?

A. He knew, and many persons about Framingham talked about it. It was between the time they were drawing off and ended drawing off Farm pond that this basin filled, and I made a note of it, which I can find at home.

Mr. FITZGERALD.—I should like to see it.

LETTERS AND PAPERS READ.

Dr. BARNES.—I have some letters from persons unable to attend this hearing, but who wished to present testimony.

Dr. Barnes read the following:—

PARKER HOUSE, BOSTON, Oct. 9, 1882.

City of Boston:—

GENTLEMEN,—We have been buying spring water of Nathan Robbins for the last eighteen months,—from three to four barrels a day,—for the city water has been so bad our people would not drink it.

Respectfully,

H. D. PARKER & CO.

HOTEL VENDOME, BOSTON, Oct. 9, 1882.

MY DEAR DOCTOR,—As I cannot conveniently be present at the hearing at City Hall on the water question, I herewith send you a letter from the proprietor of the hotel for your use, if you desire it.

In addition, I would state that the water, as drawn from the faucet in my office, is of dirty color, offensive taste, and the odor from the hot-water pipes at times is simply disgusting.

I have long since abandoned its use in my family, and purchase spring water for drinking purposes. While I have not investigated its deleterious qualities, what I have here mentioned is sufficient cause, in my opinion, to condemn it as unfit for use.

M. E. WEBB, M.D.

Dr. H. J. BARNES.

To the Commission on Water, City of Boston:—

As one of the petitioners requesting an investigation into the causes of the impurities of our water, I desire to testify that the water supplied to my residence has been for most of the time during the past year unfit for drinking purposes, and that during the past summer I took pains to examine the water-basins in Framingham, particularly Basin No. 3, and that from the color and odor of the water stored there I was not surprised at the great complaint made by so many of the residents of this city.

I regret that my professional engagements will prevent my appearing before your body to give the testimony.

Respectfully submitted,

W. H. BAKER, M.D.

240 Commonwealth avenue.

Boston, Oct. 8, 1882.

H. J. Barnes, M. D.:—

MY DEAR DOCTOR,—Professional engagements will prevent my attendance at the City Hall to-morrow, at the hearing before the special Water Commission. Knowing that you are to be present, I take the liberty to send you this note, that you may make use of it, if necessary or advisable, as the expression of the opinion on the part of myself and my family that the water which has been supplied to us by the city has for a long time been totally unfit for drinking, and much of the time for toilet purposes. It may be said, perhaps,

that boiling will do away with its objectionable features. In reply to this I would state that my wife has, on several occasions, been nauseated by the stench which came from the water which had been drawn from the hot-water faucet for our infant's bath, and I would add that boiling water which emits such a foul odor as to nauseate one, cannot, by any process of reasoning or analysis, be proved, to my satisfaction, to be fit for drinking or culinary purposes. Holding this view, I have for a long time felt myself obliged to assume the additional expense of purchasing spring water.

I trust that the meeting to-morrow will be attended by a large number of our citizens, who I know feel as I do in the matter, and who demand that something be done to improve the quality of our water supply, first on sanitary grounds, and, secondly, to relieve us of an unwarranted pecuniary burden.

Very truly yours,

W. E. BOARDMAN, M.D.

Boston, Oct. 7, 1882.

Dr. Henry J. Barnes :—

DEAR SIR, — The water at my residence (103 Charles street) has been exceedingly offensive both in taste and in smell. Although somewhat improved lately, it is not by any means what water used for drinking purposes should be.

Yours truly,

W. MACMAHON.

Dr. BARNES. — I have also received a note from Gen. Underwood of Milford. I will present it here, although it might be used more properly at another part of the discussion. (Reading) :—

MILFORD, Oct. 6, 1882.

DEAR SIR, — Having known Farm pond in Framingham for the past forty or fifty years, I will state that, to the best of my knowledge and belief, the pond was a beautiful, clear lake of water until the water of the Sudbury basin was turned into it.

Very truly yours,

O. UNDERWOOD.

Dr. BARNES. — I have also a letter here from Mr. E. S. Philbrick ; but, as I have not his permission to present it, I desire to see him to ask permission to present it to the Commission. It is in discussion of this subject.

I should like to read to you a leader in the *Boston Medical and Surgical Journal* of August 3, 1882 :—

BAD DRINKING-WATER AND POLITICS.

Wherever stored water is exposed to such intense heat as must result in shallow reservoirs of surface water, in climates like that of most of the cities of the United States and many parts of Europe, it is liable from time to time to contain the sponge, the decay of which gives rise to the peculiar "cucumber," "oily," or "fishy" taste now and then complained of in Boston. This does not occur in the temperature of London, or in such deep, gravelly-bottomed ponds supplied by underground springs, as Lake Wenham, for instance, where the heat never rises to the height requisite for the development of that particular form of growth. Naturally, therefore, the liability to the disgusting taste and smell would be increased, as was the case by damming Lake Cochituate, and flowing many acres of meadow land. It does not appear that vegetable or animal filth increases this liability, although there are other objections to the town of Natick using Lake Cochituate as its cesspool. Professor Farlow's careful researches—which cleared the way for Professor Reimsen's lucky hit in finding the real *causa causans* of this curious taste and

smell — have apparently satisfied the Water Board and many of the public, to judge from the sententious advice: "If you don't like the water, drink whiskey," and from the readiness of our citizens to accept what seems to them the inevitable, and purchase their drinking-water. It is a fact that we do not yet know how to avoid this nauseous taste; but it is also a fact that it comes only at intervals of several years, lasts only a few days, disappears upon boiling, and is probably not prejudicial to health.

The chief trouble in the Boston water supply at present was predicted by the eminent city engineer whom the politicians drove from Boston, to the great loss of that city, and had already been clearly illustrated in the flooding of the Lake Cochituate meadows years ago. It consists in the simple fact that the Sudbury-river reservoirs were built contrary to all principles of science and common-sense; that many acres of very shallow water cover turf rotting away slowly; that the conditions for the growth of low forms of aquatic life are produced; that a bottom covered with a nasty mass of filth takes the place of gravel; and, finally, that the citizens are drinking bog-water, which is sometimes pretty good, and often very bad, — just in proportion as it is mixed with greater or less proportions of decent water. It is probable, too, that these conditions of varying heat and nastiness may be something of a factor in the production of the *clathrocystis* and *cælosphærium* and *anabæna*, which every few years rouse the wrath of the citizens, to be appeased by the Water Board's perennial habit of taking a few chemical analyses, and by the natural disappearance of the plants.

Another clear source of the dirty water observed in our bath-tubs lies in the fact that many of the water mains were laid before the practice of coating the insides with tar was in vogue, and that the roughnesses of the surfaces cause vegetable *débris* to collect and to be unevenly distributed.

It needs no elaborate argument from us to prove that the public health is not sufficiently attended to in that city, where only the rich can have pure water to drink, and where the temptation to the poor to drink bad rum is increased. Nor shall we endeavor to show that the public morality is low where important public trusts, such as the management of water supplies, are made subservient to politics.

Beyond this question, as applied to Boston, and partly in connection with it, comes the difficult problem of water and sewerage for the State, which can be properly treated only by general laws. Let us hope that such legislation will not be like that of the Butler-fearing Solons, who allowed the shoemakers of Natick, by special enactment, to bathe in Lake Cochituate rather than lose a few votes.

If we are to become so extravagant in the use of water as to require one hundred gallons daily to each individual, there must be either separate supplies, as in every farm-house, for drinking and for other purposes, or else water-meters must be introduced, as has already been done in other cities.

Dr. BARNES. — I will close, gentlemen, by reciting to you what are my own special views in regard to this matter, as published in the *Medical and Surgical Journal* of January 26, 1882, which is a paper I read before the Suffolk District Medical Society.

THE WATER SUPPLY OF BOSTON.

By HENRY J. BARNES, M.D.

The public supply of water for the City of Boston has so far improved that we can once more drink without disgust, although it is still highly discolored, and there is a disagreeable smell, particularly in that drawn from the hot-water faucets. The change took place during the cold weather in the early part of December; and it is reasonable to ascribe this to the weather quite as much as to the fact of Farm pond being shut off; for, just before the new channel was finished around the margin, I could not detect the bad taste so familiar in Boston in the water of this pond. Besides, we did not get the good water from Basin No. 2, as promised by the Water Board, for an accident to the main laid in the bed of Basin No. 1 necessitated the mingling

of the water of the two basins before it could be used through the new channel, and the analysis of the water of No. 1, made by Mr. Remsen November 5th, prompted him to classify it, in point of impurity, with Farm pond, Bradlee basin, Pegan meadows, and Basin No. 3. His subsequent discovery of *spongilla* in Farm pond seems to have so occupied public attention that the filthy conditions of the other basins, where no sponge has as yet been found, have been lost sight of. To emphasize the importance of these other basins as factors in polluting the water, I invite your attention to this subject; and that you may be better able to follow the discussion I will describe first the relative positions of the basins of the Sudbury-river system by the aid of a diagram. This system of supply is naturally good. Sudbury river compared favorably with all the many systems examined when Boston debated in 1872 and 1873 which to adopt; and, finally, when narrowed down to a question as to whether it or the Charles river should be taken, its freedom from sewage settled the debate in its favor.

Mr. Davis, the city engineer at the time, reported, in City Document 29, page 28, 1873: "There are various reasons for believing Sudbury-river water to be unusually free from deleterious matter, either in solution or held in suspension. Such was the testimony of all persons consulted, this water being used for many years for bleaching, and noted for its fitness, indicating it was free from color," etc. Again, on page 33, Mr. Davis writes: "The usual water of Sudbury river is pure and clear." These were his conclusions, although at the time there was some discoloration, due, as he says, "to the taking up of vegetable matter during a freshet after an unusually dry summer."

Professor Remsen's more recent examination supports this opinion so far as it goes.

Stony brook does not seem to have received so much attention, presumably for the reason that not even a suspicion of impurity has ever been raised in regard to it. A farmer living near it, just above No. 3, tells me he "has always known the water to be clear and good." I can find no authoritative statement that either receive any considerable amount of sewage, but, on the contrary, many reports that it does not exist to any appreciable extent in the water of either of those streams.

There remains the natural basin of Farm pond to describe, which, before the introduction of Sudbury-river water, was pure and clear. It received the drainage of a very limited area of the flat territory around, — not even a good-sized ditch emptied into it, — and its outflow was into the Sudbury river. The clean stone and gravel bottom could be seen from many parts of the surface. At either end there is a peat-bog of several acres, and in the deepest parts considerable mud, which the Water Board state measures thirty feet in some places; but this may be fairly questioned when we take into consideration that it is a shallow pond, situated on a plain which abounds in quicksands as easily penetrated by a pole as mud would be. I have been familiar with the pond for the past twenty years, and have always known the water to be pure and clear until the water from No. 3 was let into it, when it became dark and turbid. Mr. Davis, in City Document 29, page 26, 1873, says, that Farm pond, being a natural basin, but little work is needed to put it in good order.

The water of this supply was first used in the summer of 1872 by constructing a temporary dam on the Sudbury river, just below the outlet of the pond. At the other end a channel was dug to conduct the water into Beaver brook, a tributary of Lake Cochituate, and by these means the lake was supplied and kept full most of the time until the completion of the new conduit connecting Farm pond directly with the Chestnut-Hill reservoir, and for seven years we had no trouble with this water. The local engineer reports in City Document 79, page 128, 1879, "that the surface of Lake Cochituate has, by this means, been kept higher than usual, and the quality fully up to the standard of previous years."

The trouble with the water began after the completion of Basin No. 3. This basin was filled for the first time in the winter and spring of 1878 and 1879; the following September there was a general complaint throughout the city of bad-tasting water. *Algæ* were found in all the basins, and Mr. Davis, in one of his reports to the Water Board, said it was conveyed

from No. 3 to the others. Professor Nichols attributed it to vegetable matter taken up in the storage-basins.

Let us now examine No. 3, and notice what changes took place there. I have a sectional view of this basin as it appeared after the water was drawn down last summer.

Mr. Davis anticipated this effect; for, in Document 29, page 43, of his report in 1873, he urged the "rapid construction of the new basins, that they might have time to decompose the vegetable matter;" and on page 35 he says: "No. 3 includes an extensive swamp, and lands supporting a rich vegetation, which it is desirable to have removed by grubbing and excavation, as it will, otherwise, have to be gotten rid of by a slow process of decomposition, which will be apt, in the summer months, to deteriorate the water." One would suppose that, with this recommendation and the experience the Water Board had gained by disregarding it, they would seize the first opportunity to free the basin of this material. Not so, however; they caused it to be refilled to the line of clean gravel, and it purified itself during the winter. The next year it was drawn on, but to a limited extent. There were some *algæ*, but the water was fair during the year. Last spring, being full to the line of clean gravel, it was so good that, with water from Basin No. 2, the entire supply of the city, save that furnished by Mystic river, was taken from this source. The effect was to lower the water rapidly in No. 3, and expose vast mud-flats and banks in the early summer, which, exposed to the hot sun, became very offensive. The alternate rise and fall of the water, the waves and the currents assailing the banks, washed away great quantities of these overflowed farm-lands, which for many years had received the products of the barn-yards, and were full of dead animal and vegetable material. The earth-worms alone, Mr. Darwin tells us, number 26,000 per acre, and their excrement amounts to ten tons a year. Beetles, moles, grasshoppers, sewer-bugs, and many other forms of animal life make up material undergoing the process of decomposition. Do you wonder that these flats have been infested by large flocks of crows, here doing excellent work as scavengers?

Then, as to the decaying vegetable matter, do any of you as boys remember the opening of a vegetable cellar in spring, and its disgusting stench, or the decay of hay about the barn-yard? Is it to be wondered at that Mr. Remsen should say "the water smelt of the pig-pen," and ought not to be used, or that the citizens of Framingham should complain of the smell?

Now let us trace this filthy water to Boston. It is conducted, as I have shown you, through Basin No. 1, without mingling with its waters, into Farm pond. Drawn from the lowest point of the basin, the greatest amount of suspended material is swept into the pond, there to spread over this shallow sheet of water, to steep and macerate during the summer. Much is deposited, for the current is slow; and since the pond has been drawn off I have taken pains to measure the depth of the deposit.

About the upper gate-house an inch at least overlies the clean gravel, and the new channel cuts through it all the way to the gate-house at the other end of the pond. As you approach the natural channel it is much deeper; there are three to six and even ten inches of this material, filled with sticks, roots, and blades of grass, such as you will see in one of the bottles I show, the presence of which leads me to infer that it is recent. Mr. Van Vliet found this mud to emit very offensive gases; another fact tending to show that the deposit is recent.

The *spongilla* was found by this gentleman distributed only in that part of Farm pond which Mr. Wightman, the present city engineer, pointed out at a meeting of the Natural History Society as being the natural channel between the two gate-houses, and it was found in greatest abundance about the upper gate. Professor Hyatt, at the same meeting, described the habit of the *spongilla* as attaching itself to hard surfaces and living by absorbing quantities of water, from which it selected its food. I find in Griffith and Henfrey's Micrographic Dictionary that *algæ* are its chief nourishment. It is not fair to infer, then, that the luxurious growth of the *spongilla* in Farm pond subsists on the organic material introduced from "pig-pen," and that it is living at the expense of quite as noxious material as itself.

Farm pond is not capable of acting as a settling basin, for all the material

from it comes into our houses in Boston to clog the filters and pollute our tanks. I found in mine a deposit of mud three-quarters of an inch deep, which a short time after being taken out became very offensive. Half a dozen or so of coagulated masses were partially suspended near the bottom, and the sides were lined with a soft, slimy-feeling substance, which, under the microscope, showed abundant *algæ*. The tank was at the top of my house, and fed by a faucet governed by a floating ball, insuring a slow current, and thus giving the most favorable chance for the material to settle in the pipes, and be drawn off through the faucets in the lower stories. It was cleaned and securely covered eight months before.

If these conditions suggest anything it is that the supply is contaminated first in the new basins by taking up decomposing animal and vegetable matter. Mr. Davis hoped that the new basins would be "completed some time before it would be necessary to use the water, that they might assume the character of natural ponds." By this process Professor Nichols recognizes the dangers of vegetable matter in storage-basins when he writes: "Deposit in storage-basins goes on continually, and is preparing evil for the future, as this deposit undergoes a slow process of decay." Instead of a slow process of decay these vast lands were uncovered early in the summer, and the most rapid process of decay and decomposition possible was the result. Professor Edes, of New Jersey, examined Boston water last summer, and states in brief "that it contains pollution amounting to seventy per cent. above the limit of health, and that he found it abounding in decomposing organic matter." Does any one but Boston's Water Board pretend that all this filth comes from the once beautiful Farm pond? No, gentlemen; it comes from the new basins, and you can see it passing, as I did December 10th, when the color of the water in the new channel cut around Farm pond was that of good coffee.

In 1854 Dr. Jackson attributed the trouble in Lake Cochituate to the decay of vegetable matter. In 1873 the Water Board, having Mystic in charge, "congratulate the city on having provided additional pumping power, and enabling them to draw off the water, giving a long-desired opportunity to clean the basin."

The Mystic basins were chiefly built like those on Sudbury river; and you know how often complaint has been made of the bad taste of the water. In dry seasons vast mud-banks here have been exposed, I am told.

Cochituate has been drawn low many times, exposing the mud, particularly in that part of the basin next to Natick, which receives the sewage of Pegan brook. It can hardly be doubted but that this has operated to vitiate the water of Lake Cochituate. Westborough, Mass., has had trouble with its system, and the engineer under whose charge the work was done, writes me that he attributes the trouble to vegetation left in the basin, the gentleman representing the town disregarding his recommendation to remove it. Newton, taking Charles-river water, excavated a basin something like one thousand feet long, from which the water is pumped, and it has always been good.

Mr. Wilde, member of the Water Board, having the care of Spot pond, tells me "the trouble was caused there three years ago by the exposure of vast mud-banks during a dry summer. The following spring the ice which had frozen to this mud raised a great quantity of it, which was distributed in the water when the ice melted." Albany, taking its supply from Lake Rensselaer, thought to increase the area by raising a dam. A bad taste of the water was the result; and Professor Chandler, considering the decaying vegetable matter to be the cause, advised its removal, which was done, and relief followed. The basins at Chestnut Hill gave us no trouble when first constructed, for the wash of the banks was guarded against by a clean stone lining. The water of one of them is said to have had a bad taste for a short time in 1875. I do not attempt to explain the trouble, but in view of its receiving water from Lake Cochituate through the old conduit which Mr. Wiggin reported, after an examination, "to be lined with a growing substance resembling sponge," and Mr. Davis subsequently reported "the sides covered with a vegetable growth," it is suggested only that the trouble might be introduced from this source. The late Dr. Jacob Bigelow said "that the water of Sudbury supply would not be good until the basins were cleaned;" and Professor Sharples, in an interview published in the *Herald*, November 21st, says, "I do think

that, in every case, so far as reported, the smell and taste can be traced to decay of vegetable or animal matter."

You will naturally ask why the water of Basin No. 2 on Sudbury river should be good this fall, while Nos. 1 and 3 were bad. It differs from them in that its banks are steep and there are no extensive mud-shoals to be exposed when the water is partially drawn off. It is a small basin, supplied by the considerable amount of good water flowing in Sudbury river. The steep banks have been effectively washed down to the clean gravel, and it has been kept full except for a short time in the early part of last summer.

I do not discuss the theories advanced by able men as to the causes of trouble, for I admit that all, save "the fish story," have an abundance of evidence to support them. But I do claim that they each depend on the organic matter taken up in the basins decomposing and furnishing nourishment for the many forms of noxious life found in our water, and which impart to it taste, smell, and color by their decomposition.

Dr. BARNES.—Dr. Beach promised to be here at 11 o'clock, if possible, and if not, would send me a note asking that there be adjournment of the Commission, that other evidence might be produced. But it seems to me, with the evidence and letters produced, you have enough to prove there is Complaint. One of the principal banking men of Boston said. "D—n it! don't the commission know that there is complaint? I think they should know it. I haven't time to go and tell them. I can afford to buy spring water."

Dr. BLAKE.—It seems to me, Mr. Chairman, we might admit that fact, and that there is no necessity for cumulative evidence.

The CHAIRMAN.—We will admit the fact. It is admitted that there is complaint; but the question is: What is the cause, and what is the remedy?

Dr. BARNES.—Another question in reference to the cleaning of Basin No. 3. Mr. Cutter says it will cost two millions to clear and concrete the bottom. Mr. Wightman says it will take between a million and a million and a half. I labor under a great misapprehension if the loam in Basin No. 4 is not being removed at an expense of \$40,000, and it is an immense basin. If it is going to cost only \$40,000 to clean Basin No. 4, I hope Mr. Cutter will reconcile that fact with you. I do not claim to be an engineer, and am not an expert in this matter, and only present what has occurred to me during the last two or three years in observing this subject.

The CHAIRMAN.—This appropriation was made not on any specific estimate. It was made in the Common Council without any actual estimate of the cost. That was the way the \$40,000 was put in.

Dr. BARNES.—It seems to me Mr. Greenough's connection with the water supply, being on the committee, would enable him to state somewhere near the expense of cleaning Basin No. 4. In reply to Mr. Whitmore, in the Council, he said \$40,000 would probably do it. I think Mr. Greenough is capable of estimating the difference between \$40,000 and a million and a half.

The CHAIRMAN.—I do not understand that an estimate has been made by the engineer.

Mr. BARNES.—I understand the testimony of Mr. Wightman is that it will take about a million and a half dollars;—will go but little way.

Mr. WIGHTMAN.—I should like to interrupt just here. I made

a statement that Chestnut-Hill reservoir cost \$640,000. Its banks are covered with stone paving and coping, and it has walks around it. I certainly would not be willing to make a statement that it cost a million and a half dollars to take the loam out of that basin.

Dr. BLAKE. — I don't understand that the engineer made any such statement. I understood him to say it would cost two or three hundred thousand.

Dr. BARNES. — His statement was that a million dollars would go a small way toward doing that work.

Mr. WIGHTMAN. — That is Chestnut-Hill reservoir.

Dr. BARNES. — Nobody asks for that work.

Dr. BLAKE. — But the question is the removal of the loam from Basin No. 3.

Dr. BARNES. — And Mr. Wightman brings in the question of making a grand boulevard like that about Chestnut-Hill reservoir to compare it with.

Mr. WIGHTMAN. — I made a statement that Basin No. 4 contained about a half million yards of what we call loam, and I supposed it could be taken out for fifty cents a yard. That was the only statement I made about taking out loam; and I never made such a statement about Basin No. 3. Of course Mr. Barnes can state that I said so; but the reporter has it down in black and white what I did say.

Dr. BARNES. — There is one other thing I desire to say, and that is in regard to the pollution of Bradlee basin. In view of the statement made by Mr. Cutter, of the efforts to remove the *spongilla*, it seems to me the pollution of that basin might have come from the *spongilla* in the old conduit.

Mr. CUTTER. — I should like to interrupt, and ask why the Lawrence basin was affected in the same way?

Dr. BARNES. — I have only your reports on the subject, and do not know if it is so, or not. I only know the conduit has been lined with *spongilla* from time to time, and has the same conditions for growth as in Farm pond, namely, the laying bare of those meadows, Pegan and Dug, year after year, where the *algæ* and other forms of aquatic life find nourishment, and has thus nourished the *spongilla* in the old conduit.

Gentlemen, I am very much obliged to you for your patient listening to me.

Mr. FITZGERALD. — I suppose you are aware that the *spongilla* were in Lake Cochituate before they took the water for Boston?

Dr. BARNES. — Yes, sir; I understood Dr. Jackson found it there.

Mr. FITZGERALD. — I have seen it at the upper end for the last ten or twelve years.

Dr. BARNES. — Yes, sir; and for the last ten or twelve years you have laid bare Dug meadow and Pegan meadow, and furnished it with sufficient nourishment to vitiate the Cochituate water from time to time.

Mr. CUTTER. — Dr. Barnes understood the odor in and about Basin No. 3 was so bad that people passing by shut the car-windows down; and he says that, if you call on any of the residents

about there, they will tell you it smelt like a pig-pen. We have a resident here, and should like to have him make a statement.

STATEMENT OF SAMUEL B. BIRD.

The CHAIRMAN. — You reside there?

Mr. BIRD. — On the north side of Basin No. 3, Framingham.

Q. Have you seen any trouble, or any bad effect or smell, from the pond?

A. No, sir; I never noticed any bad smell from the pond since the basin was filled. My cows go to the basin every day for water, except in winter, and we have used the water from the basin in washing in the house. Of course, the water has been warm which was used in washing, and we never noticed any bad smell. When the water is very low there is a sediment in the water, and it requires to be strained before it is used in the house; but we never noticed any bad smell.

Dr. BLAKE. — Do you take the water out of Basin No. 3 directly for domestic purposes?

A. Occasionally.

Q. What is your water supply?

A. From wells; but last year and this year the water has been quite low in the wells, and we have been to the basin several times for water.

Q. You make tea and coffee of it and drink the water of Basin No. 3?

A. No, sir.

Q. Why not?

A. Because we have it in wells.

Q. But when your well is low, what do you do then?

A. The water has never been so low but we used it for cooking purposes.

Q. But you never noticed the water dipped from the margin of the pond was offensive when heated?

A. No, sir; I never noticed any bad smell from it.

Q. Has the water been lower in Basin No. 3 this year than in previous years, leaving a wider and deeper margin exposed?

A. It has not been so low this year as last year, — at no time.

Q. Even when this large margin was exposed you have not perceived any offensive odor?

A. No, sir.

Q. And your sense of smell is keen as most men's?

A. Yes, sir, I think it is. It is within thirty rods of the house.

Dr. BARNES. — Which side?

A. On the north side. The south and south-west winds are the prevailing winds during the summer.

Dr. BLAKE. — Have you noticed that the margins or edges of the pond or basin looked offensive?

A. The edges are improving every year. The soil is gradually being washed down into the low places, leaving a gravelly margin.

Q. That is a fact?

A. That is a fact.

Q. What percentage should you judge had been washed away, leaving the margin gravelly?

A. I could not give you an intelligent answer, not having been around the basin; but near my own house the border is almost all gravelly.

Dr. BARNES. — Do you know of any complaint by citizens of Framingham of the odors from those basins?

A. I haven't heard any until I heard Mr. Lewis' statement to-day. That is the first I heard of it.

Dr. BARNES. — I wish the Commission would get the opinion of those living near Dr. Johnson's place. I cannot summon witnesses to come here. I know very well there are gentlemen living there who complain of the smell from those basins.

Dr. BLAKE. — You are quite a prominent man in that community, Mr. Bird, — assessor and member of the school board, — and brought in contact a good deal with people who live there. Have you heard any complaint of this pond being offensive?

A. I haven't heard anything, except as I have heard it on the stand from men who have been summoned in suits against the city. I am familiar with my neighbors who live on the borders of the pond; and I know their opinion as expressed daily, as I meet them, in regard to it. Aside from witnesses summoned against the city, I haven't heard any complaint.

Q. So that disinterested parties find no cause for complaint?

A. No, sir; and I know neighbors of mine who use the water almost daily from the basin for washing purposes. The manager of the town farm has been in the habit of going to Basin No. 3 for water for washing purposes, and his cattle go there to drink. Another neighbor, who lives within ten rods of the basin, uses it, and his children play in it. They think a great deal of the water and have never complained of any offensive smell.

STATEMENT OF T. B. BRIGGS, OF CAMBRIDGE.

Mr. BRIGGS. — I had the honor, or dishonor, of writing an article in the *Herald* some time ago, which may undoubtedly have had something to do with this investigation and hearing. I believe the Water Board want to get at the facts in the case, and wish to know what is best to be done. They do not wish to throw away the city's money, and they are willing to use the money of the city for the benefit of the city when they are convinced it is really necessary.

In regard to cleaning the basins, or covering them with concrete, silver, gold, or glass, I don't see how it would remove the difficulty so long as the source is polluted, so long as it comes from such a place as Sudbury river, with which I am pretty well acquainted. My suggestion or inquiry is this: whether there may not be some system of filtration before the water enters the basin, or enters the pipes, on a large scale of two hundred feet long and of depth and breadth accordingly, so that the water can be thoroughly filtered before it comes into the pipes. Could we not have such a system? I think they have such a system in Connecticut, which is

a great success. I could not give the facts fully in regard to it, but I was reading of it some time ago. A very large system of filtration was entered upon and they found it was really a success. If we could have some such system as that, by which the water could be purified, it seems to me it would settle the whole thing. I think the trouble has been largely owing to our dry summers. They have had the same trouble in New York, and we are liable to have poor water at any time unless there is some way to correct this abuse. I understand that my friend, Mr. Barnes, who has testified, agrees with me that there should be some plan of filtration.

Dr. BLAKE. — Are you the author of the article, of the 18th of December, on the “Water we Drink”?

A. No, sir; that wasn't mine. Mine was concerning “Sudbury River, and What Shall we Drink?”

[Adjourned to Tuesday, Oct. 17, at 4 P.M., at which time a quorum of the Commission did not appear, on account of professional engagements of some of the members, and a further adjournment was had, subject to the call of the chairman.]

THIRD HEARING.

OCTOBER 27, 1882.

The Commission met at 4 P.M. Present: Messrs. Caldwell, Chairman; Blake, and Greenough.

Dr. Blake read some letters from Dr. Barnes, Mr. Wolcott, of the Hotel Vendome, and others, which were laid on the table.

Mr. GREENOUGH. — Was there testimony at the last hearing to the effect that there never was any smell?

Dr. BLAKE. — There was testimony introduced of that character. Mr. Bird, who is pretty familiar with that locality, testified that no unpleasant odor was ever noticed by people about there who were in a position to notice it, if such existed.

Mr. GREENOUGH. — I suppose that what we want to hear to-day is a statement from the Water Board about the water supply.

The CHAIRMAN. — Is there anything, Mr. Cutter, you wish to say?

STATEMENT OF L. R. CUTTER, CHAIRMAN OF THE BOSTON WATER BOARD.

Mr. CUTTER. — I suppose it is unnecessary for me to go over the whole history of the Water Works. I suppose you gentlemen are conversant with it.

Mr. GREENOUGH. — What does Dr. Blake think about that?

Dr. BLAKE. — I think not. I am quite familiar with the history of the Water Works, but I think Mr. Cutter might as well sketch the times when the water has been unpleasant to the taste.

Mr. CUTTER. — Of course, I have all the data. The investigation for a new source of supply began in 1871, when we employed

Mr. Joseph P. Davis to look over the various sources of supply, at a salary of \$5,000 a year, I think it was. He educated himself in relation to the different rivers and sources of water supply, and reported in favor of our taking the Sudbury river. We did take the Sudbury river, under authority given by an Act of the Legislature, and by subsequent authority of the City Council, as recommended by Mr. Davis. I believe I can state here that Mr. Davis' recommendations — I think every one of them, and my associates will correct me if I say anything that is not correct — were adopted by the Water Board, and that we never rejected any of them. We had confidence in him as a competent engineer, and we followed his suggestions. I know that in one particular he suggested to us the propriety of putting in pipes so we could connect the waters of the different reservoirs without mixing them together. He said it was a question involving about \$100,000, and it was for the Water Board to decide; and the Water Board decided to put them in. So far as removing the loam was concerned, and excavating the shallow places, his recommendations were adopted by the Water Board, and I think some \$30,000 were spent in that way.

Mr. GREENOUGH. — Do you mean to state that Mr. Davis' recommendations were adopted in full by the Water Board?

A. Yes, sir.

Q. As regards the removal of the loam from the basins?

A. Yes, sir. After the basins were constructed, the Park Commissioners wanted some loam, — that is, after the recommendations came from Mr. Davis in regard to furnishing loam to the Park Commissioners from Basins 2 and 1. Basin 3, I think, was partly filled, and Basin 1 was, and Basin 2 was not so full, but it had accumulated considerable water. The dam, I think, was about finished at that time; that was the last one finished. The Water Board thought that to draw the water down and excavate the loam at that time would jeopardize the city's supply in case we had a dry season, which afterwards proved correct; and the water supply would have been jeopardized if the water had been wasted down the river, and we had begun removing the loam for park purposes. Of course, this removal of the loam is a question no one can tell how far it is desirable to spend money in doing it. It may be good; it may be of no good, excepting the looks and appearance of the basins. But, in Mr. Davis' report, he says that he recommends the construction of the dam to Basin 3 at the present time, while he thinks, perhaps, it will be three years before the city would need the water; but that it would be necessary to construct it so that the grass, roots, and vegetation would have time to decompose, and in three years from that time the city would need the water, the decomposition would be gone through with, so much so that the water would be free from pollution from that source, or nearly so. But, owing to the dry season, we had to draw upon the first waters we filled that basin up with. Then, again, we have the loam in the shallow places, and the quantity of loam was more; and, in Mr. Davis' report, he represents that there is more danger from that source in Basin 2 than in either of the other basins. Now, it has been proved that the

water in Basin 2 has been as good, been freer from *algæ* and better in taste, than in either of the other basins; and yet there is more loam and more shallow water there than there is in the other basins. If that is any argument, it is an argument to show that if we had removed the loam the same trouble would have existed, if you call it a trouble. So that it is a question that no one can tell about. But it does seem to me that if you go into the country and take river-water, — water that I, as a country boy, would never drink, and never considered fit to drink up in the country where I lived the first twenty years of my life. — and bring it into the city, I am a little surprised that you get as good water as you do.

MR. GREENOUGH. — Do I gather from what you say that you do not consider river-water fit to drink?

A. We do not consider it fit to drink in the country — country boys do not, because they can get well or spring water.

Q. You were on the Water Board at the time this river was taken, were you not?

A. Yes, sir.

DR. BLAKE. — Did you make any protest against it?

A. No, sir. I consider the Sudbury-river water as good as any river-water.

Q. Still, you consider river-water not fit to drink?

A. I did not say so. I said a country boy wouldn't drink it if he could get anything else. A country boy would drink it if he could not get anything else. But, then, the water improves in the city. I think I can relish the water better here to take it out of the faucet than to take it out of the basin.

Q. Do you object to it as a country boy because you know the sources of pollution?

A. I don't think it is very much polluted, except it is warm when it has been exposed to the air considerably. Spring-water coming out of the ground has not been exposed to the air, and well-water is not so much exposed to the air, and it doesn't taste so well after it is exposed. But I don't know that it will harm anybody to drink it.

Q. Do you know that there is a prejudice all along the Sudbury river against using the water in the country through which it flows?

A. I don't know that that is a fact. In relation to Mr. Barnes' letter, that Dr. Blake just read, perhaps one word in relation to Mr. Bird should be said. Mr. Bird held the office of assessor in that town. Now, when we had claims for damages to settle, we were forced to go into court, and we cast around to see whom we could get to act as witnesses. So we took the Board of Assessors and summoned them in against their own will; but they could not help themselves, because they had assessed the value of this property. When we got them upon the stand they were the best witnesses we could get, — the fairest witnesses. But, as for Mr. Bird having been employed by the Water Board as a witness, it is not true in the sense in which "employing witnesses" is usually applied, and unless you call a man an "employed witness" who is summoned to testify against his will. Dr. Barnes alludes to Mr.

Johnson, who had suits against the city and wanted a large amount of damages, and we didn't think he should have so much.

Mr. GREENOUGH. — I do not suppose the Board wish to state that there never has been any smell from any of those basins, do they?

A. They do not wish to state that there has been no smell from the gate-house where the water has been drawn out, of course, for we have experienced it there. There are strata of gases in waters, which emit bad odors, and they have been found also in Lake Cochituate. At a certain time, at a certain depth down, when you draw the water off, it would smell.

Dr. BLAKE. — The Dr. Johnson referred to in this letter is in West Springfield street?

A. I have no doubt it is the son of the same man.

Mr. GREENOUGH. — Do you consider the water in Boston good water to-day?

A. I consider the water good water. I have used it always. When my folks come down from the country-house, where we have a country well of as nice water as anybody, we drink this water down here, and my people don't complain of it at all.

Q. You are on the high service, I believe.

A. Yes, sir.

Q. There has been considerable difference between the water on the high service and that on the low service?

A. In different localities there seems to be a difference; yes.

Q. Now, I am on the low service, and in the water I find in my house there is a distinct muddy taste. It is not as offensive as the sponge or cucumber taste, but there is an unpleasant taste in the water. I should like to know to what you attribute that.

A. Well, I could say this much: In the country, in the spring of the year, when the frost is coming out of the ground and leaving the territory, there is a sort of taste in the brooks which we boys used to call a sucker taste, or frog taste, — a sort of ground taste. At that time the fish began to leave the ponds and run up the streams. In the fall of the year, when the frost begins to come and the temperature to change, that taste is perceptible then. It is a kind of ground overflow, as you might call it. It tastes something like this green frog spew, as the boys call it, in the country, that gathers in your trough, and it gathers in spring-water as well as river-water, and the smell is just the same as this.

Q. But there is a muddy taste and discoloration of the water also. The water coming from the low service now is yellowish.

A. The water coming now is none of the water from Basin 3; but it is from Basin 2.

Q. I know it; but it is not good water.

A. It is the river-water and has that color when it runs into the basin. I don't think it has any more color than when it leaves the basin. Now, last spring, when they began to complain of the water, — or some of them did, — I tasted it myself and followed it up pretty closely, and about every morning when I got up I tasted it before I tasted anything else; and we sent up and got a sample from the gate-house, and we also sent up to an old pond,

Mr. Rice's pond, on the same stream, less than half a mile above, and got a sample; and then we sent up to a brook which leads into them, and of those three samples the brook tasted the worst of the three.

Q. What was the taste?

A. Well, it was a sort of meadow-water taste. It tasted as if the water had run a considerable ways in meadow land.

Q. Was it free from *algæ*?

A. No; it was this spring before the *algæ* commenced to grow. The water seemed to be improved in Rice's pond and also in Basin No. 3. The water all comes through Rice's pond to Basin No. 3.

Mr. SAWYER. — I believe we thought there were some *algæ* in the water at that time?

Mr. CUTTER. — In the brook-water it was a little more colored.

Q. But this best water?

A. No; I never saw any *algæ* as I know of.

Q. I thought we saw the *algæ* there?

A. That was before the *algæ* began to grow, I think; I don't remember. We saw that the brook-water was not quite so free of motes.

Mr. GREENOUGH. — I understand you to say that the water from which Basin No. 3 was fed was a little worse than the brook-water?

A. Yes, sir; I think it is called Angle brook. It comes down through considerable meadow land this side of Marlborough.

Q. What do you consider to be the purity of the Sudbury-river supply as to sewage? Do you consider that there is any sewage coming into the river?

A. Of course; there is a great deal of sewage, more or less, running into all rivers; but I do not think there is any great amount going into Sudbury river. It runs through a kind of territory — Hopkinton, Woodville, and other places — where there is not a great deal of pollution from sewage. If there are any sources of pollution, we have a report of them from the Engineer, Mr. Fteley, in our office. Mr. Merriam has a woollen mill from which there is some pollution, on the Sudbury, in Cordaville.

Dr. BLAKE. — Where does the sewage from the Women's State prison at Sherburne find its way?

A. It finds its way down to Lake Cochituate.

Mr. GREENOUGH. — So far as sewage goes, Sudbury river is cleaner than Lake Cochituate?

A. I should think there is a good deal less sewage in the Sudbury than in Lake Cochituate, because Natick and Pegan brook are the worse sources of sewage that we have.

Dr. BLAKE. — For sources of contamination we have Pegan brook, Cochituate village, part of South Framingham, and the Women's prison?

A. South Framingham runs into Farm pond.

Q. But the others?

A. The others run into Lake Cochituate. The Women's prison has not been so bad for two years past; I believe the State has spent twenty or thirty thousand dollars there in utilizing the sew-

age or purifying it, so that they think it does not harm our water.

Mr. GREENOUGH. — That is all strained out before it passes into the brook which runs into Lake Cochituate?

Mr. CUTTER. — Yes, sir.

Dr. BLAKE. — What is the process of filtration?

Mr. GREENOUGH. — It is used in irrigation. I haven't seen it, but I think the water in the brook shows no sign of sewage.

Mr. CUTTER. — No, I do not think it shows any sign of sewage. Sometimes we think perhaps there is a little bead on the water like frost.

Dr. BLAKE. — Has it ever been analyzed?

A. No; I do not think there has been an analysis of it since the State has spent that money.

Q. Do you notice any change in the Sudbury-river water to-day from what it was when the city first took it? Is it more highly colored, or does it taste different?

A. I could not say. It rather looks fully as high colored as the first time I saw it.

Mr. GREENOUGH. — You were on the Board when the Sudbury river was taken?

A. Yes, sir.

Q. You expected at that time that the water from Sudbury river would have that high color?

A. I think it was understood that storing it in the basins would bleach it out.

Q. Has it been bleached out?

A. I do not think it is as yellow as it is when it comes in, especially after it comes from the reservoir at Chestnut Hill.

Q. The reservoirs at Chestnut Hill are entirely filled with water from Sudbury river?

A. Not necessarily so.

Q. More so than the Brookline reservoir?

A. Yes, sir; more than the Brookline reservoir.

Q. Is there any muddy deposit in the reservoirs at Chestnut Hill?

A. Not much, to our knowledge. We cleaned out the Brookline reservoir two years ago. We thought we should find some fish and sediment in it, but we were surprised to find it was so clean, and, in fact, it did not pay to clean it out, except that we had a chance to repair our conduit around to it and bind it up, which it seemed to need. One man said he would give us two hundred dollars for the fish that were there; but the fish we got did not amount to anything; we didn't get two bushels full, to my knowledge.

Q. That basin has always been filled from Cochituate water?

A. Not always.

Q. Practically, there never has been anything there except Cochituate water?

A. Probably more so a great deal than the Sudbury.

[At this point the City Engineer produced two glasses of water, one from the high and the other from the low service. Upon the samples being tasted it appeared that the one from the low service

had a strong taste of mud, and that from the high service was free from such a taste.]

Mr. GREENOUGH. — But the water in Lake Cochituate is clear; there are no *algæ* in it?

Mr. CUTTER. — We have had it shut off since we have had basins to supply the city. We have had to shut off Lake Cochituate from some time in January to some time in July — I think that was in 1880 — because of the cucumber taste. Then we had to shut off the Bradlee basin some five years ago, for some three months, I think, in the winter, because it had a strong cucumber or very bad taste; but that came around all right, and so did Lake Cochituate, and we did not have to waste the water.

Q. This water you are now supplying to us comes from Basin 2?

A. Yes, sir.

Q. That is as good water as we can expect to have from the low service?

A. Not necessarily so.

Q. That water is comparatively clean, although it has a slight tinge?

A. We are not obliged to supply the low service with that water. We can supply it to the Brookline reservoir, and can supply Chestnut Hill with the lake-water, if we choose.

Q. Well, the main supply being drawn from the Sudbury river, that water is as good as we can expect to get from the Sudbury river, is it not?

A. I could not say how much better it will grow, but I suppose it is as good as you can get to-day.

Mr. SAWYER. — Does Mr. Greenough mean to ask if what we get from Basin 2 is as good as we can expect to get from Sudbury river?

Mr. CUTTER. — No; whether the water we get from Sudbury river is as good as we can expect to get.

Mr. GREENOUGH. — You detect the muddy taste in that water?

Mr. CUTTER. — No, not appreciably. If you should hand that to me in the dark I don't think I should distinguish it. But I see there is a trifle difference.

Q. Do you consider that satisfactory water?

A. I consider it satisfactory if you cannot get any better. If you could, we should like to have it.

Q. Do you think it is as satisfactory water as can be got from Sudbury river?

A. I think if that water could remain longer in the reservoir it would be better. We are drawing it now pretty fresh from the stream.

Q. That is to say, if our supply was more ample, so that the water could be allowed to stand longer, then the water would improve?

A. Yes, sir; if we had our different dams constructed so we would not be obliged to draw from a basin that takes the water direct from the river, it would improve the water.

Q. The water would improve if the supply was increased or the demand diminished?

A. Yes, sir.

Dr. BLAKE. — Or the number of reservoirs increased?

A. Yes, sir.

Mr. GREENOUGH. — But your recommendation is now that the city should decrease the consumption, rather than increase the supply?

A. No; it is to increase the supply.

Q. I read in your report that it was desirable for the city to decrease the consumption.

A. But we recommended the construction of an additional basin.

Q. After Basin 4 is finished, that it would be advisable to secure the land for another basin?

A. Yes, sir.

Q. And you give, as a recommendation of the Water Board, now, both the increasing of the supply and diminishing the consumption?

A. Yes, sir, that is our duty.

Dr. BLAKE. — Have you been able to demonstrate that allowing water to stand a long time — two or three years — would render it more satisfactory and improve the taste and color?

A. I think so, from the fact that Lake Cochituate is of a better color and the taste is different.

Q. Its source is different?

A. It has brooks running into it.

Q. Its bottom is different?

A. Yes; but there is Pegan brook running into it. It has more pollution running into it than the river.

Q. But it is not river-water?

A. No, sir, it is spring-water.

Q. And it has been quite clear and almost tasteless?

A. Yes, sir.

Q. And on the contrary, Sudbury river has always been brown and highly colored?

A. Yes, sir. I think that where I live I don't experience any such trouble as Dr. Barnes has had about trouble in the tanks. I live on Hancock street, about half way between Derne and Cambridge streets. It is about the lowest part of the high service. We use the pipe so little that the water which comes into our house is comparatively free from sediment. That is the reason I get so much better water than you do in your street, Mr. Greenough.

Mr. GREENOUGH. — Still, the high service is supplied from Cochituate?

A. More so.

Q. And when that fishy taste was so prevalent last year, if I remember aright, the high service did not experience but a little of it?

A. We only had it two days.

Mr. WIGHTMAN. — That was simply from the lifting of the gate, — that is all.

Mr. GREENOUGH. — As a matter of fact, when the city was complaining last year of the cucumber taste, the high service did not experience it. Both the members of the Water Board who live on the high service did not appreciate the character of the water the people were drinking, and it seems that Mr. Wightman gave them a taste of it.

Mr. WIGHTMAN. — I believe the Chairman of the Water Board did not like it.

Mr. GREENOUGH. — I want to ask you, Mr. Cutter, whether, as Chairman of the Water Board, you think the laws in regard to the purification of the water supply are satisfactory; and, if not, why not?

A. No, sir, they are not satisfactory to me. I think we ought to have a law that will prohibit bathing to a considerable degree, and also to prohibit boating to such an extent that the Water Board ought to license all boats, because boats used by boys and people that do fishing nearly always have bad water in them that makes a nuisance. Then I think we ought to have a pretty strong law, to prevent pollution. We have a law that is pretty strong until we come to a jury. We can go to the State Board of Health, and we did go against the town of Natick, and took five of our best cases, and the Board gave us the case, and enjoined them. Then they appealed to a jury and we had a trial in the Town Hall, which was filled with people from about there, and the sheriff ruled in their favor, and we had no show at all, and the case was decided against us. The sheriff ruled that if the water was not good when running into the other end of the lake, where it went out to go to Boston it was all good. Then we took an appeal to the Supreme Court, which decided in our favor, but the Court did not enlighten us. We had taken an exception, and contended that the Board of Health should be present when this trial before the sheriff's jury took place; but they were not notified to be present. The Supreme Court took that one item and decided it in our favor, and left all the other items undecided. The law is that we enjoin the individuals, and not real estate, and, therefore, all they have to do is to change tenants and owners, and they slip out of our hands again. So the law is not very effective.

Q. You consider, as Chairman of the Water Board, that you have taken all the measures you can to purify the water supply, but you are prevented from being successful from the lack of a proper law?

A. We certainly have exercised all the zeal in our power in that respect.

DR. BLAKE. — So you have no additional recommendations to make or suggest toward improving the quality of the water?

A. Of course, we should recommend a different law, but we are met by saying, that if we go up to the Legislature and recommend a different law, we will not get as good as we have got. In our experience up there, it has proved somewhat so. Malden suffered by people trotting horses on their ice in Spot pond after the snow had gone. They would go out there with four or five hundred sleighs and trot on the pond, and when there came a thaw the

water on the top of the ice would be of the color of coffee. They wanted to prohibit that, and came to us, and we said we would also like to prohibit bathing in the waters used for our supply. They said they would add that on. We went up there and worked together. Finally, they came to me and said if we didn't leave off that bathing clause we should not get anything, and if we left it out the other would go through. Of course we would rather take a half loaf than none at all, and we left it out; and of course we got it. That was on Spot pond, which is the supply for Malden.

Mr. GREENOUGH. — It wouldn't do you any good at all?

A. It did us so much good that prospectively they cannot trot on Lake Cochituate or Farm pond.

Q. They never did do that?

A. No, not to any extent.

Q. Have you anything else that you wish to state, to go on record from your Board?

A. Any suggestions?

Q. Any suggestions or any statement in regard to the taste and character of the water supplied to-day. You are aware, of course, that the Water Board has been criticised in the papers and by the public. Have you anything you wish to say in answer to that?

A. Well, in answer to that I can say that the water of Boston is as good as that of any other city in the United States, and will average as good, if not better. You must know that when we are called upon to furnish forty millions of gallons every day, we cannot strain it and filter it every day before we let them have it, because the quantity is too large. But we have done the very best under the circumstances that we could, and have acted honestly and done the best we could with the facilities we had to work with. We, of course, might have gone to work and spent \$100,000 in removing the loam, and, sentimentally, we would stand better to-day; but, in a practical, business point of view, I am not sure we haven't saved the city \$100,000, because the water might not be better, for the evidence to day is that Basin 2 is better than the water that goes into it.

Dr. BLAKE. — If you were going to work to prepare a system to better the water, how would you go to work to store it if you had to save the rain-water and store it for some time? Would you cement the sides of the basins or leave them open clay?

A. We should have to cement them to hold the water in. I suppose your question is, whether I thought a muddy bottom would improve the water. Now, Mr. Norman says the best water is found where the bottom is muddy. He has had as much to do with water as anybody in this country. The fact that the Lawrence basin is muddy, and the water never tasted bad, and the Bradlee basin being gravelly and the water tasting bad, corroborates his statement.

Dr. BLAKE. — That would depend upon whether the water which entered these basins was pure in character?

A. It went into the Lawrence basin first and from that into the Bradlee basin, and both came from Lake Cochituate.

Q. It doesn't seem to me quite reasonable to suppose that a

great, powerful solvent like water is not going to dissolve organic matter and hold it in solution. I think it might as well be admitted here that it does affect its taste to some extent.

Mr. GREENOUGH. — I was going to ask Mr. Cutter something to that effect, and also Mr. Wightman. What do you consider to be the effect upon water when it is first let into these basins? Doesn't it take a considerable amount of vegetable matter?

Mr. CUTTER. — I never supposed you could get as good water from a new basin as you could from an old one.

Q. How old ought a basin to be for the decomposition to go through with?

A. I should say three years, certainly.

Q. You advise the building of the basins ahead?

A. Before we want the water.

Q. But, as a matter of fact, you have been obliged to use the basins as soon as they are done?

A. Yes, sir.

Q. When were Basins 2 and 3 constructed, do you remember?

A. Basin 2 was the last one filled, in the fall of 1879 and spring of 1879. Basins 3 and 1 were filled the year previous.

Q. Well, now, you expect to give us the water from Basin 4 as soon as it is completed?

A. Not unless we have a dry season.

Q. What do you expect is to become of that water? Basin 4 is on the Sudbury river, is it not?

A. Yes, sir. I think the water will purify itself if allowed to stand long enough.

Q. You cannot run that water to waste except through Basin 2?

A. No, sir.

Q. What do you expect will take place in that basin after it is filled with water?

A. I expect the same effects in that basin as you see in Basin 3, that the *algæ* will grow in it.

Q. At first?

A. Yes. I don't know what will cause the *algæ* to grow; nobody knows; because we have seen *algæ* grow in old ponds where no sewage goes into them, nor any filth. We see them grow in pure spring water, up here in Woburn, and we see it pumped up from the spring.

Q. Why do you think the water is going to be any better after lying there for three years?

A. Because I think the vegetation will decompose, and the grass and roots and everything of that kind die. Of course we cleaned out Basin 3 and burned it out as best we could, with the exception of scraping out the loam and gravel; but so far as the vegetation was concerned it was all cut and burned. But it was a dry season.

Dr. BLAKE. — You not only had the decomposition, but the settling and precipitation of this matter to the bottom?

A. I suppose the impurities settled to the bottom.

Q. And if you have it stand long enough that is the process you expect?

A. Yes, sir ; but I am not a scientific man, and cannot tell exactly.

Q. I know ; but you understand that process very well. If you have a small amount of clay or earth, or anything in that water, let it rest long enough, and the thing settles, and then you hope to draw the water above that?

A. Yes, sir. It is like drawing a pitcher of water in St. Louis ; if you let it stand the gravel in it settles to the bottom of the pitcher.

Dr. BLAKE. — And then the exposure to the air brings about purification?

Mr. GREENOUGH. — Then what you say is practically this : that, in your judgment, a basin ought to stand three years before the water is used?

Mr. CUTTER. — Yes, sir.

Q. And you have never been able to let it stand at all, before this?

A. Yes, sir.

Q. And if nothing is done to decrease the consumption you will find it necessary to use the basins as soon as constructed?

A. Yes, sir, unless we have a wet season ; in such a season as we have had for the last three years.

Q. And if the consumption keeps on at its present rate?

A. Yes, sir.

Dr. BLAKE. — Then your views remain unchanged, that we have no reason to expect an improvement in the quality of the water in the near future?

A. I think the water will improve in these new basins already constructed.

Q. How can it improve in the basins?

A. From the very fact that most of the basins have now been constructed three years.

Mr. GREENOUGH. — The water in Basin No. 3 is as bad to-day as it ever was?

A. No, I do not think it is as bad to-day as it was last season.

Dr. BLAKE. — Is it not as bad to-day as it was last summer?

A. No, for the reason that we were obliged to draw it down last summer, which naturally had a bad effect on the water.

Q. But you are an expert in water ; isn't it your opinion that if you could allow the water to stand in those basins to some extent, it would prevent the disagreeable effects which follow the exposure of those margins to a high temperature?

A. I think the absence of the sun's rays would prevent it.

Q. So that if we had a sufficient number of basins to allow the water to stand during the summer, and could, in the meantime, get our water supply from some other source, we might not experience the same result in hot weather?

A. Yes, sir.

STATEMENT OF CITY ENGINEER H. M. WIGHTMAN — *Continued.*

Mr. WIGHTMAN. — There have been certain questions asked by this Commission which I have answered, and have since taken the pains to get at more accurately.

This question of shallow flowage seems to be one that by general consent influences the quality of water as much as any other. I really do not know how to avoid it, except at large expense. You may take any large pond, or large lake, and it always has more or less of this shallow flowage, and usually the percentage would not vary as much as would be supposed.

I presume this Commission, and the Water Board too, would have an idea that Lake Cochituate had very much less shallow flowage than any basin in the Sudbury. But the fact of the matter is, it has not so very much less, as you would suppose. I have had some figures made showing the percentage of shallow flowage in Lake Cochituate, Basins Nos. 1 and 2; Basin No. 4 I have not got.

In Lake Cochituate the water area at high-water mark we call 800 acres. The shallow flowage line I have assumed to be at 5 feet in depth, as anything lower than that would be quite shallow; and the average is 184 acres of shallow flowage, or 23 per cent. of the total water area.

Basin No. 1, 149 acres, averages 58 acres of shallow flowage, which would make $38\frac{9}{10}$ per cent. That basin has the most shallow flowage of any. We have never considered that basin a proper source to draw from except in case of an emergency. It was a necessity to put it there, because we had to commence the conduit at that point. But the basin never was considered by Mr. Davis as a very desirable one to build; but it was built as a necessary part of the scheme.

Basin No. 2 has 136 acres, 31 of which are shallow flowage, which is 23 per cent., or 22.81 of the total area.

You see that Lake Cochituate and Basin No. 2 are very nearly alike.

I made a statement that there is as much shallow flowage in proportion to area in Basin No. 3 as there is in Basin No. 2, but that is not quite correct. In Basin No. 3 there are 283 acres, with a shallow flowage of 79 acres, which makes 27.9 per cent.

You see Lake Cochituate has 23 per cent.; Basin No. 1, 38.9 per cent.; Basin No. 2, 22.81 per cent., and Basin No. 3 has 27.9 per cent. Basin No. 4 will have much less than that, even less than Lake Cochituate.

Mr. GREENOUGH. — Supposing that 5 feet to be 8 or 9 feet, how would it be affected?

A. I think the same proportions would hold, except in Basin No. 1, where it would be very largely increased.

Q. Is there not a very large amount in Basin No. 3 which would be left with very little water on it at five feet?

A. No, there is not a very large amount of it. I do not think it would increase that percentage.

Now, as regards this question of *algæ*, about which I have been asked some questions by the Commission. The matter has been

pretty thoroughly investigated by scientific men. While I think their opinion is that it is generally caused by the shallow flowage, I do not think with many of them that it is caused solely by shallow flowage. At any rate, Lake Cochituate is quoted as being a pure source of supply; and yet it has as much shallow flowage as Basin No. 2, and within five per cent. of the shallow flowage of Basin No. 3.

As regards *algæ*, I have known Lake Cochituate twenty-five years, and there have not been three years out of the twenty-five that I have not been there, and I have never known any year that the *algæ* were not in the lake, — in some portion or the whole of it, — and usually it would occur twice a year; not always, but usually it would occur twice in the year.

As regards Farm pond, of which so much has been said to this Commission by Dr. Barnes, who thinks the appearance of the *algæ* dates from the introduction of the Sudbury-river water, there are old residents of Framingham, who have lived on the borders of this pond for years, who can furnish information that that pond has always been affected by *algæ*. There is one gentleman living on the border of the pond who has known about the presence of *algæ* for forty years. I think he would testify to this Commission that there has been no year in forty years that there has not been *algæ* in the pond. Lake Cochituate and Farm pond are natural ponds, and also Horn pond, which is largely a source of supply. I suppose the water of Horn pond has a reputation all over the world; it has been shipped everywhere in the shape of ice. It is a pond of one hundred acres, with an average depth of twenty feet. Yet the first trouble we had with *algæ* originated in Horn pond, and was localized there, and drifted down to Wedge pond, and from there into the Upper Mystic. There have never been any in the Abajonna river, but I have no doubt they have been in the ponds there.

Mr. GREENOUGH. — *Algæ* do not occur in running water?

A. Apparently not, to any extent. There are at least a dozen kinds of *algæ*. The report of the State Board of Health of 1879 has a very able paper by Dr. Farlow, giving their names and showing the great variety of them. The *algæ* causing this trouble can be classed among the Nostoc family. I do not think anybody knows whether the presence of these *algæ* is injurious to health; no scientist of reputation has yet been prepared to state positively that it was.

As regards these *algæ* in Basin No. 3, there is rather a curious thing about that, which, perhaps, illustrates what Mr. Cutter says, and which is the generally received opinion among engineers, that in building a basin of that kind the water should be stored two or three years before it is used, especially when there is cultivated land, or any land where there is much matter to decompose. You asked Mr. Cutter a few minutes ago whether the water in Basin No. 3 had not been about as bad this year as last. I do not think the water in Basin No. 3 has been as bad this year as it was last year. The appearance of the *algæ* dates later, so far, every year, and this year it has appeared later than any other. I think that goes to show

that it may eventually die out. If you should visit Horn pond or Wedge pond to-day you would probably find the *algæ*. It was so yesterday. Last year the same thing appeared nearly two months earlier; the year before that it was earlier still. So it seems as if the thing might possibly disappear for a time.

Mr. GREENOUGH. — It has not disappeared even in Lake Cochituate?

A. That is, it may disappear for a term of years, and then reappear again, perhaps. I do not know how it will operate in the basins, but in Lake Cochituate I have not seen a year in twenty-five years when it was free from *algæ*.

Q. If that basin could be kept for three years and then all the water run out of it and wasted, probably it would be much better for the basin?

A. I do not think it would be absolutely necessary to waste the water. Of course these organic matters decompose and are oxidized by the air and water, and I do not know why that would not be as good water as the basin filled up again. For instance, when the Chestnut-Hill water was badly contaminated by the *spongilla*, the water was isolated for two or three months, at the end of which time I was not able to see that the water did not taste about as good as ever. It had a flat taste; that is, it lacked air. But there was no discoloration and no muddy taste. So I do not think it would be absolutely necessary to waste that water. I think the effect of the oxygen in the water would decompose all those matters and settle them in such a way that the water would be, perhaps, purer than if we let fresh water into it.

Q. How long do you think it should stand before you should use it?

A. At least two or three years; but that cannot be in the present state of our supply. We are to-day at the limit of our supply, practically, in a dry year. As you know, last year, if it had not been for our getting some six hundred million gallons from another source, which we did not expect to get, we should have been just that much short of our supply, notwithstanding all the notices issued to people about being careful in the use of water.

Q. So you consider it necessary that we should either increase our supply or decrease our consumption?

A. Yes, sir, decidedly.

Q. And of course decreasing consumption is the cheaper means of the two?

A. I think so.

Q. Will you instance some cases in which *algæ* have appeared in water perfectly pure and uncontaminated?

A. Yes, sir; there are two cases pretty close to us, and well known by parties familiar with the subject. For instance, when the water-works were first established in Brookline they took their water from what is known as Cow Island, lying in Charles river, between Dedham and West Roxbury. They dug a channel in the Island, which they stoned up loosely at the side, and turned an arch over it. They took ground-water of course. From there it was carried in pipes to their pumps, and it was pumped through pipes

some two miles long to a reservoir on Fisher's hill. Whenever I have seen that reservoir — and, in fact, I guess you will find it so to-day — it has always been in what you would call a filthy condition; that is, it is filled with *algæ*. It is built with earth banks and lined with stone. Two-thirds of it was excavated out of the solid ground. The bottom and sides were of clay and lined with masonry.

Q. And you would think the *algæ* came into it with the water?

A. I do not know. I know that in tube wells it was impossible to keep them out.

Q. What was the other case?

A. The other case was the Horn-pond water-works, which supply the town of Woburn. I laid those works out, and made the original report for the town of Woburn. It was intended to take the water direct from Horn pond, and the gate-house was located on the borders of the pond. But when they came to locate the pump well, they found there was an enormous quantity of water running apparently towards Horn pond, but the temperature was 10 to 15 degrees lower than that of Horn-pond water; that is, if it was 70 in the pond, the average temperature of this water was 50 to 55. When they found they had so large a quantity of water, they built a short gallery, to take it direct to the pumps and pump it into their reservoir on a hill which is on the site I selected, — a regular rocky gorge, and all it required was a dam at one end. That was all cleared off and a dam built across the end and the water pumped into it. I think that if you visit it to-day you will find the water filled with *algæ*. It has been so every year, notwithstanding it is kept in what is called a rock reservoir. Those are the two cases I am most familiar with, and the ones about which the Commission could obtain any quantity of evidence to corroborate mine, as to the presence of the *algæ* in the water.

Q. Do you know anything about Wenham lake?

A. Yes, sir; I examined it for the city of Salem ten or fifteen years ago.

Q. Did they find any *algæ* in that?

A. I do not think there was, although the amount of water they use is quite small, and there might not be sufficient *algæ* in it to trouble them. The temperature of the water is always low.

Dr. BLAKE. — The development of *algæ* is a question of temperature?

A. Yes, sir.

Mr. GREENOUGH. — Whether it is your opinion that *algæ* would appear in any water exposed to the sun?

A. I think it would. The temperature of the Sudbury-river basins is now about 60°.

Dr. BLAKE. — And what is Lake Cochituate — about the same?

A. Yes, sir; it is about the same.

Q. And fed by springs?

A. It is fed by ground-water. I do not think there are any springs there. I do not think the water comes from a great distance; that is, there are no deep-seated springs. The ground water may come for miles. If it is porous ground when you draw the water down, you draw it from the entire country around; and when you fill it up, you fill the country again. I pumped Lake Cochituate in 1871 the first time; of course we kept expecting that the springs would develop themselves to some extent, but I never noticed that any appeared. We could draw the water from the wells in the country around, and we did take the water out of them. But the water was drawn down about fifteen feet and you could not find any places where there were any signs of springs. I doubt very much if there are any springs there.

Mr. GREENOUGH. — Are you familiar with the water supplies of other cities of this country?

A. Yes, sir; I have visited most of them.

Q. Are they troubled with *algæ* in the New York City supply?

A. I could not state as a fact that they are.

Q. Do you know anything about the preparation of their basins?

A. They built their basins just as we did; but the country they built in is much more rocky than the Sudbury district. There is less cultivated land in proportion to the area of the basins.

Mr. SAWYER. — They have had the cucumber taste there?

Mr. WIGHTMAN. — I am not sure whether they have or not.

Mr. SAWYER. — I think Prof. Remsen said so in his report.

Mr. WIGHTMAN. — They had it in former years, I think.

Mr. GREENOUGH. — Has there been any difference in the preparation of the basins on the Sudbury from the plan of other cities?

A. No, sir; I suppose there are a dozen towns in the immediate vicinity of Boston which are supplied in the same way, and the basins were built in exactly the same way. The town of Arlington is supplied in the same way, and has a very shallow basin. The town of Winchester has a similar basin. In these cases they simply build the dam across a valley.

Q. And strip off the loam?

A. They do not strip off the loam.

Dr. BLAKE. — And they have the same trouble. Out at Winchester, I understood, the water was so bad they could not use it.

Mr. WIGHTMAN. — Prof. Remsen makes the following statement:

Last winter, also, the Croton water of New York became affected in the same way. We have abundant records to show that the "cucumber taste" has affected waters in many other places. I may mention, for example, the following other places: Hartford, Conn., 1871; New Haven, Conn., 1864, 1865, 1872; Norwich, Conn., for several years in succession; Jacksonville, Ill.; Holyoke, Mass.; Lynn, Mass.; St. Paul, Minn.; Keene, N.H.; Albany, N.Y.; York, Pa. Many other places might be mentioned; but the above will suffice to show that the difficulty is not confined to one section of the country.

Mr. GREENOUGH. — You have no doubt that the cause of the cucumber taste is the *spongilla*?

A. I have not the slightest doubt of it.

Q. And that it is such a thing as may come into our water supply at any time?

A. It is liable to.

Q. And the only way to free our water supply from that taste is to have an excess of supply?

A. It is the only way I know of.

Q. I suppose the Sudbury and Cochituate supply, as it comes to-day, is as good as it is likely to be, as long as we are unable to store it?

A. I think so.

Q. Now, sir, I want to ask you in regard to a question which I am not sure may not be of importance. I think I showed you a letter written to me by Dr. Lyon Playfair, some months ago, when the Commission were talking about going to Lake Cochituate, in which he says:—

It may be that you require filtration through oxide of iron to burn up this organic matter.

I also want to recall to your recollection the conversation we had with Sir Frederick Bramwell, in regard to the universal filtration of the water supplies of the English towns before it is used, and stored in small quantities before it is actually put into the supply. Have there been any experiments of that kind made in this country on a large scale? Not in filtering through a sand bank or gravel bed, but filtration through a regular filter, at the rate of thirty or forty million gallons a day, for the purpose of removing organic matter?

A. No, sir. There are no artificial filtering works in this country except those at Poughkeepsie. Mr. Kirkwood, quite a number of years ago, was sent to Europe to investigate the question of filtration; but his conclusion, and that of others of the best engineers in this country, was, that it was impracticable, on account of our climate, to carry out any system of filtration similar to those in Europe.

Q. Why?

A. Simply on account of the cost, the great expense of maintenance, and the difficulty of keeping the works free from ice. There is trouble of their clogging with *algæ*. If you take water, such as it has been here, a filter would clog; we would have to have four times the area to take care of our water in consequence of this *algæ*. We made enough experiments to show that the filters would clog in an exceedingly short space of time when the water was full of *algæ*. Notwithstanding all the study given to the subject since then, there has never been but one place which has attempted to introduce it, and that is Poughkeepsie. I do not know whether it is a success or not. But the filters were constructed upon the best plan, under the supervision of Mr. Kirkwood. There are plenty of filters in this country which are failures. The town of Brookline attempted it at Cow Island, and had to abandon it, and take water direct from Charles river. The city of Lowell built a filtering gallery, and for a few years it answered very well;

but it began to clog up, and in time it was found impracticable to get water from that gallery. They thought they would put in an artificial gallery, and that did not work but a little while. So now they take the water directly from the river.

Q. And distribute it through the system of pipes?

A. I asked Mr. Francis about it. He says they practically distribute it as received from the river; but it stays in the reservoir a certain time, and much of the sediment settles out of it. I should think it would be bad. I used to visit out to Chelmsford, and between there and Lowell was boating and fishing on that river five or six weeks in the year, and saw the water at various stages of the river. I should think it would be usually very dirty for drinking water. The book referred to is published by Mr. Kirkwood.

Q. Did he consider the question of filtration by oxide of iron?

A. No; I think not. You know what Sir Frederick Bramwell said the other day, or what Mr. Davis said in conversation with him: "I know they did have such a system at Berlin, and it was abandoned on account of the ice."

Q. Of course they would not be likely to be troubled with *algæ* in the winter?

A. No, sir; in the summer season they are troubled with *algæ*, and in winter with ice.

Q. But they were using oxide of iron at Berlin?

A. No; I think it is only the ordinary system of filtration. In regard to that system of filtration by oxide of iron, I have always been of the opinion that a complete aeration of the water would improve its color and quality.

Dr. BLAKE. — Is there any way by which the water supply can be more aerated than it is now?

A. I think if we built a conduit across Farm pond I should make some experiments on that. I have talked with a good many parties about it, and I am more than ever convinced that something of that kind should be done to improve the water.

Mr. SAWYER. — Don't we think the conduit should be built across Farm pond?

Mr. WIGHTMAN. — That is what we do think.

Mr. GREENOUGH. — Do you suppose there is any one in this country who knows anything about the system of filtration by oxide of iron?

A. I do not think there is. It is only done on a small scale.

Q. Those English water companies must be accustomed to handling as much water daily as we do?

A. But they have half-a-dozen supplies. They may not take half as much water from any one source as we do.

Q. But there are seven times as many people, and each company must supply more people than we do. They must be in the habit of handling large quantities of water.

A. I guess not as large as thirty or forty million gallons a day from one source.

Q. Although the Cochituate sometimes has *algæ* in it, and sometimes *spongilla*, it has not this organic taste to it which the Sudbury has, and it might be necessary to filter only the Sudbury.

A. Cochituate water is stored longer. I think if the Sudbury water was stored as long as the Cochituate, it would taste as good as the Cochituate, particularly in the new Basin, No. 4.

Dr. BLAKE. — Is there any difference in the character of the living water and stored water?

A. That brings up this very question of aeration. I think there is a difference.

Q. Have you stated before this Commission any reason why, in your opinion, there should be a difference between the water in Basin No. 2 and Basin No. 3; why Basin No. 2 has so few *algæ* and Basin No. 3 so many?

A. No, I do not know any reason why it should be, except, of course, there are very much larger bodies of water running through it; but they are not any larger than runs through Basin No. 1. The same quantity of water runs through Basin No. 1 when it goes over the dam, and yet the *algæ* invariably appear in Basin No. 1.

Q. The character and preparation of the basins is substantially the same?

A. Yes, sir, practically.

Q. The same amount of shallow flowage?

A. Within 5 per cent.

Mr. GREENOUGH. — What have you got to say in regard to this pig-pen odor which Prof. Remsen refers to?

A. There has been a smell up there from time to time, but it is no more than you would smell from any fresh-water pond when drawn down. You get the same smell when the pond is drawn down. You get the salt-water smell from the flats when the salt-water is drawn off. You invariably get it when the water is drawn down and the bottom exposed.

Q. Now, I wish you would, if possible, make an experiment in regard to this purification. Sir Frederick Bramwell spoke of purifying the water and taking the organic matter out of it by the iron slag which comes from the furnaces, or something of that kind; and it would be very easy to make a small experiment.

A. Well, you have the letter of Dr. Playfair.

Q. Yes, that is oxide of iron and charcoal. But Sir Frederick Bramwell says he is a member of a company, and he suggested that his word might be taken with a grain of salt, but he said they had been extremely successful, and he gave me a pamphlet showing what beautiful water they had been turning out after it passed through this iron. It might be possible and worth our while, leaving no stone unturned, to see if it would not be possible to get

some figures as to the quantity necessary, absolutely, to purify the Sudbury system. Do you think it would be possible to do so in the course of a month?

A. I do not know why not. I will say that we have tried sufficient experiments with ordinary filtration to show it is entirely impracticable, especially when there are *algæ* in the water. It would be impossible to erect the works without an enormous cost. To filter ten millions of gallons a day would cost at the rate of four hundred thousand dollars for the plant alone. Multiply that by four and you will see what it comes to.

Q. What has been the average consumption the past year?

A. About thirty-one millions.

Q. That is, the Sudbury and Cochituate together? You have taken about eighteen millions from the Sudbury?

A. Yes, sir.

Q. The water was filtered in what way, in your experiments?

A. Through regular sand filters, of the ordinary form. That report was made by Mr. Davis, and is in print. I may not state the figures right, but I can get them.

Dr. BLAKE. — I wonder if Lyon Playfair expected to discolor the water as well as purify it by this change?

Mr. GREENOUGH. — I should judge it would take out just this difficulty which we found in the water here.

Mr. WIGHTMAN. — The water loses its color entirely in storing. It keeps growing lighter and lighter in color.

Dr. BLAKE. — Is it not a fact that on the Continent they cover all their storage basins?

Mr. WIGHTMAN. — Yes, sir, they are obliged to. They cover the filtering basins, and the distributing basins also.

Q. Is it not also a fact that they are getting rid pretty rapidly of all the shallow basins and making them very deep?

A. I understand they are, as a rule.

Q. So that they want to avoid the effect of temperature upon the water?

A. That is the object.

Dr. BLAKE. — After all, Mr. Chairman, it seems to come down to a question of temperature.

Mr. GREENOUGH. — In the production of *algæ*?

Dr. BLAKE. — Yes, sir.

Mr. WIGHTMAN. — Here is the report of the State Board of Health for 1879, in which there is a report by Mr. Fteley, which is of interest as showing the experiments made (page 123). Prof. Farlow's report commences on page 131. In that report he goes into it very thoroughly, as you will see. It will be useless for me to read it. There is also the report of their correspondence in relation to the effect of *algæ* in the Mystic-water supply. There is one thing that Prof. Farlow does here to which I wish to call attention. He calls Horn pond a very filthy basin; but I am sure I do not know for what reason, because it was always considered one of the best ponds in the vicinity of Boston. Simply because it had *algæ* in it, he thinks it is very filthy. He seems to think it a bad pond, anyway.

But there is more information upon that question of *algæ*, of the different kinds, how they grow, etc., and it is the best information on the subject that I know of, — in fact, it is the only thing that has been written that amounts to much on that subject.

There is a report that I wanted to call attention to. I stated some figures a few moments ago about the cost of filtration. Mr. Davis gives these figures in his report, on page 34 of the fourth annual report, 1880. The report was written in December, 1879, and was reprinted in the report which I made to the Water Board of that year. Without going into details, perhaps a few extracts from it will answer. He gives the different methods of filtration, and finally says (page 35): —

The estimated cost is, therefore, for artificial filters constructed on the European plan, and consisting of two feet of fine sand, one foot of coarse sand, one foot of fine gravel, and three feet of coarse material placed in layers in masonry reservoirs or tanks. To filter 10,000,000 gallons daily, and to provide a surplus area that the process of cleaning may be carried on without interruption to the supply, seven beds, each having an area of about 33,000 square feet, will be required, — allowing an average flow of fifty gallons per square foot per day.

The relative levels of the lake-surface and the existing conduit are such that pumps will be required —

(We should, practically, have to do the same thing on the Sudbury and Cochituate.)

— to lift the water from the lake to the filters, which last will deliver the filtered water to the conduit by gravitation, and are to be situated near the gate-house, at the upper end of the conduit, where good sand and gravel for forming the beds are found.

The estimated cost is as follows: —

Inlet chamber and pumping station	\$120,000
Filters, tracks, washing beds, etc.	250,000
	\$370,000
Add ten per cent. for superintendence and contingencies	37,000
	\$407,000
Add land damages, say	20,000
	\$427,000

That is for 10,000,000 gallons on the Mystic. That is about what I stated from memory (reading): —

The cost of pumping and of operating the filters would be about five dollars per million gallons of filtered water.

The interest upon cost of works at five per cent. would be nearly six dollars per million gallons, making the total cost eleven dollars.

Then he goes into the question of expediency. He speaks of this quantity of *algæ*, etc., and here is one thing I should like to call your attention to (reading): —

There are special difficulties attending the filtration of water in a climate subject to extremes of temperature. In the winter, the water on the filtering-beds freezes, and thick bodies of ice often form, which require to be removed at a considerable cost when cleaning or repair of the filtering surfaces is needed.

In the summer, the hot sun acts upon the sand-beds through a shallow

stratum of water, heating the water, and thus rendering it possible for plants to grow upon the surface of the filters. This growth seriously interferes with the action of the filters, and necessitates frequent cleaning.

Both of these troubles may be obviated by covering the beds by arches or roofs, and it is probable that the growth of *algæ* in the filtered water may be prevented by covering the clear-water reservoir.

No estimate has been made of the cost of covering the reservoirs, but an approximate estimate, amounting to \$80,000, has been made of the cost of building substantial sheds over the filters.

You see it would increase that up to \$500,000 for ten millions of gallons daily.

There is another matter I wanted to speak about in connection with this *algæ*, to show you that there is no pond, however pure it may be, that is not liable to have *algæ* in it, although it may not be an injurious kind. Mr. Brackett, one of my assistants, was at Centre Harbor, and wrote me from there on August 5, 1881:—

The water here is full of what I take to be an *algæ*, although it differs from those which we have had. The lake here is about as bad as was the Mystic two years ago. They do not have any thermometers here, but I judge that it is about 99° in the shade here to-day.

I telegraphed him to send me a sample of the water, which he did, and it was worse than any water I ever saw here. The entire surface of the lake for miles was covered with this green *algæ*, but by the time my telegram reached him there had been a high wind which dissipated them to some extent.

Mr. GREENOUGH.—There is a great deal of talk about the different sources of supply to which we might possibly turn. Do you know of any source of supply in the vicinity of Boston from which we could get any better water than we do now?

Mr. WIGHTMAN.—No, I do not. Of course there are sources of supply which might be better, but the cost would entirely preclude the city's getting them. The reports made by Mr. Davis at the time the Sudbury-river scheme was being considered show that he considered every source of supply within a reasonable distance of Boston, and, with most of them, even if the quality was particularly good, the expense of getting them was entirely beyond the limits to which the city could afford to go. While it is all very well for people to talk that the city can afford to pay any amount for water, if the people were taxed six per cent. on the cost for the works for water brought from a long distance, I think they would change their opinions, and would rather get along with a poorer supply than pay the bills. For instance, I testified before the Committee on Water, that to bring water from Lake Winnipiseogee would cost fifty millions of dollars. You see that, under the act, which requires the income from the water-works to pay the water debt, the cost would be so high that it would debar people from using it for manufacturing purposes,—I mean, supposing always it could be done.

There is only one more thing I wanted to say, and that is in regard to this bad taste in the water. It certainly is not attributable to the Sudbury-river water. It is liable to occur in any water. I refer to the cucumber taste. I do not believe the *algæ* have any-

thing more to do with it than anything else. It is caused by the sponge, and it is liable to appear in any water supply, even the purest.

STATEMENT OF TIMOTHY T. SAWYER, OF THE BOSTON WATER BOARD.

Mr. SAWYER. — Something has been said, Mr. Chairman, at these meetings, in relation to the removal of the loam, and a disagreement between the Water Board and Mr. Davis; and then, again, as to how much soil has been removed; and I should like to make a little statement in relation to that.

As has been stated here, our relations with Mr. Davis were always of the most pleasant character. We had the utmost confidence in him, and always adopted his recommendations. We made some changes in his plan; for instance, he did not originally contemplate a brick conduit from the Beacon-street tunnel to the Chestnut-Hill gate-house, and the plan was changed from a wrought-iron pipe to a brick conduit. But all his recommendations, as Mr. Cutter has stated, were adopted by the Board, and we never disagreed with him.

In regard to the removal of the loam, Mr. Davis, in his report, speaks of the advisability of removing it, if possible. So far as the action of the Board was concerned, on the 6th of July, 1878, it was voted

That the engineer be requested to give the Park Commissioners such information as they may require as to the amount of filling that may be obtained from the basins.

Mr. Dalton, Chairman of the Park Commissioners, came before the Board and we had a conversation with him. While I was on the Board this was the only action taken in relation to the removal of the loam from the basins. But the recommendations of Mr. Davis were always adopted, and we never had any disagreement in relation to it.

Now, in regard to the matter of loam, I wish to call attention to this: It has been stated that Prof. Remsen said the filth in Basin 3 encouraged the growth of the *spongilla*. But he says, in his report: —

The materials usually found at the bottom of such ponds, such as loam, etc., do not emit strong odors or give any characteristic taste to the water.

Then he says further, — and I suppose it is the reason why he has been quoted, — he is speaking of the mud from the basins: —

While this mud is not directly responsible for the "cucumber taste," it may possibly have something to do with it indirectly, as it may be favorable to the growth of the sponge, which is, in all probability, responsible for the objectionable condition of the water.

But he adds: —

I am, however, not able to speak with any confidence on this point.

This is one thing I want to have corrected, because he did not give a decided opinion. I have been making a study of the trouble with the water supply here, and will call the attention of the Commission to the result of my investigations. I have taken the pains to look over the record from the beginning of the Cochituate supply.

In the first place I would like to add to what I said in regard to clearing the mud from the basins, that I do not want the Commission to get the impression that nothing has been done to clear out this mud from the basins. There was a good deal done. I have a memorandum of contracts where we paid seventeen or eighteen thousand dollars for clearing out mud in the shallow places, and the places can be given. It is all a matter of figures, and appears in Mr. Fteley's report, where the mud was excavated when the basins were constructed. For instance, we had a contract with an Italian for excavating near Whiting and Bullard's, \$2,000; another for excavating on reservoir No. 1, for \$2,836; another for filling and grading land of Nevins, \$6,704; another for a wooden dam, to prevent exposure of shallow places in Basin 2, \$1,267; another for cleaning up wood and brush in Basins 1, 2, and 3, \$2,750.

I mention this merely to show that something was done.

But what I wanted to call your attention to was this, which may be of service to the Commission. Looking over the reports I find in the report for the year 1851, the engineer, Mr. Chesbrough, said : —

Last spring, principally in the months of April and May, there was a very general complaint of the water tasting badly; and in many instances, though not so generally, the smell was considered bad. The subject received immediate attention, and everything was done that was thought judicious to discover and remedy the evil. The principal measure that was resorted to was a thorough flushing of the pipes all over the city, by passing through them as rapid a current as it was possible to produce by opening hydrants and waste-cocks. In some cases the evil complained of was not removed. In almost every case the trouble was traced to filters that had become filled with decayed animal matter. The probability is that one great cause of complaint in the spring is owing to the change of temperature of the water, causing it to have a flatter taste.

Then, in the report of Mr. Chesbrough for the year 1852, he says : —

Last spring the aqueduct received a thorough cleansing. A peculiar substance like very fine dark mud is deposited upon the surface of the brick-work, and adheres for a time; but, in consequence of the changes in the depth and velocity of the current through the aqueduct, this substance sometimes comes off in sufficient quantities to give the water the appearance of being filled with sawdust. This makes it necessary to cleanse the aqueduct partially twice every year.

Last spring a number of bunches of extremely attenuated and delicate roots were discovered hanging from the top and sides of the aqueduct, between the Newton and Brookline tunnels. In some instances they were three or four feet long, and so tender as to break with the slightest force, and, of course, very easy to remove.

In the autumn a great many patches, in some cases larger than the crown of a man's hat, of a vegetable substance *like sponge* in texture and color, and frequently with coral-shaped branches several inches in length, were discov-

ered in the first mile of the aqueduct, being most numerous near the lake. They were very tender and easy to remove.

Now, here is another remark he makes in this connection : —

It is a little singular that this should be the first instance of discovering them in the aqueduct, as precisely the same species of plants, apparently, was discovered in the large stopcocks that were taken out of Tremont street, at the head of Dover street, to be repaired more than a year ago.

That carries it back as far as 1851. Then, in the report for the year 1853, is this remark : —

A very recent examination of the aqueduct shows that the deposit mentioned in the last annual report has again taken place, and must be removed within a short time. The peculiar vegetable substance occurring in patches of from one inch to one foot in diameter, and first discovered in the aqueduct last year, when it was confined to the mile nearest the lake, is now found in every part of the aqueduct from the lake to Brookline reservoir. It is so tender, however, that the ordinary cleansing is sufficient to remove it. There is reason to believe that it grows very luxuriant in still water, as will be mentioned under the head of iron pipes.

Then the Commissioners say this in relation to it : —

The vegetable substance, which is mentioned in the City Engineer's report as having made its appearance lately in the aqueduct, is stated by botanists to be a species of *spongilla*, or fresh-water sponge. There is probably no way of preventing its growth; it is, however, easily removed. The only injury it is known to do is the clogging up of the screens at the reservoirs, and on this account it has become quite troublesome.

Now, here is another thing. In the report for the year 1854 the Commissioners say : —

While, however, the Water Board would congratulate the city on the sufficiency of the supply, etc., they regret to be obliged to report upon a deterioration of the quality of the water which has recently been most unexpectedly found to be so universally prevalent as to be not only a source of much annoyance to every water-taker, but also of solicitude to all who feel an interest in the welfare of the city. It was first observed in October last, and consisted of a marked and peculiar taste, resembling, in the opinion of some, that of *fish*, but we believe in that of a great majority of persons that of *cucumbers*, or some similar vegetable, the taste being accompanied sometimes by a disagreeable smell.

Adjourned to Tuesday, October 31st, at 4 P.M.

FOURTH HEARING.

TUESDAY, Oct. 31, 1882.

The Commission met at 4 P.M., all present.

STATEMENT OF TIMOTHY T. SAWYER. — *Continued.*

Mr. SAWYER. — I thought at your meeting the other afternoon that it might be interesting to this Commission to hear read some notes I had made in looking over the reports of the Cochituate

and Boston Water Boards, in relation to the quality of the water and what had happened in times past. That was my principal object in coming before the Commission, and I have nothing else to offer at this time. It seemed to me that it was important for me, as connected with the Boston Water Board, to be posted a little in relation to what happened in times past, and what was the action in former years in regard to troubles of this kind. Therefore I read over very carefully all the reports of the Cochituate and Boston Water Boards, and made some notes relating to this subject. It is to those notes that I wish to call the attention of this Commission, thinking it might be of service to them in the investigation which they are now making.

I see that some gentlemen are here to-day who were not here at the last meeting. Some questions had been asked as to what had been done by the Water Board toward the removal of the loam, and, fearing that there might be a wrong impression in that respect, I stated to the gentlemen present at the last meeting that we had made some contracts, and that a great deal of soil had been removed. I believe I gave it in figures. All those will appear in a history of the Boston Water-Works, which is now being prepared and is nearly ready, and which will be in the hands of the Commission so that they can see for themselves. But I stated that somewhere about fifteen or sixteen thousand dollars had been expended in the removal of the soil from the bottoms of the three basins, and I stated where it was done. I do not know as it is worth while to repeat that. I made the statement because there seemed to be an impression that nothing had been done; whereas, we can show the places where it has been done.

I find in the report of January, 1852, which is the report of the Cochituate Water Board for the previous year, 1851, the following statement in the report of the engineer, Mr. Chesbrough:—

Last spring, principally in the months of April and May, there was a very general complaint of the water tasting badly; and in many instances, though not so generally, the source was considered bad. The subject received immediate attention, and everything was done that was thought judicious to discover and remedy the evil. The principal measure that was resorted to was a thorough flushing of the pipes all over the city, by passing through them as rapid a current as it was possible to produce by opening hydrants and waste-cocks. In some cases the evil complained of was not removed. In almost every case the trouble was traced to filters that had become filled with decayed animal matter. The probability is that one great cause of complaint in the spring is owing to the change of temperature of the water causing it to have a flatter taste. During the winter the temperature of the water in the pipes is seldom more than four or five degrees above the freezing-point, and the change which takes place in this respect in the spring is very great. Lest, however, the difficulty should be owing to collections of offensive matter in the winter, it is intended to commence the general flushing or blowing off this year, the last of March instead of the last of April, as heretofore. Unless dead ends are blown off about once in about ten days throughout the year, complaints of bad water are made. The Brookline gate-house strainers got out of order in the spring and small fish got into the service-pipes and died. Repairs of the strainers remedied this trouble.

Then, in January, 1853, which was the report for 1852, I find this:—

Every ordinary and some extraordinary efforts were made in the spring to prevent the usual complaints of bad water, and with satisfactory success. No complaints whatever were made except in one or two instances, clearly owing to fish in pipes. The screen at the Brookline reservoir is now perfect enough to prevent this.

Then, in the report for the year 1852, Mr. Chesbrough says : —

Last spring the aqueduct received a thorough cleansing. A peculiar substance like very fine dark mud is deposited upon the surface of the brick-work, and adheres for a time, but, in consequence of the changes in the depth or velocity of the current through the aqueduct, this substance sometimes comes off in sufficient quantities to give the water the appearance of being filled with sawdust. This makes it necessary to cleanse the aqueduct partially twice a year.

Last spring a number of bunches of extremely attenuated and delicate roots were discovered hanging from the top and sides of the aqueduct, between the Newton and Brookline tunnels. In some instances they were three or four feet long, but so tender as to break with the slightest force, and, of course, very easy to remove. In the autumn a great many patches, in some cases larger than the crown of a man's hat, of a vegetable substance like sponge in texture and color, and frequently with coral-shaped branches several inches in length, were discovered in the first mile of the aqueduct, being most numerous near the lake. They were very tender and easy to remove. It is little singular that this should be the first instance of discovering them in the aqueduct as precisely the same was species discovered in the large stop-cocks that were taken out of Tremont street, at the head of Dover street, to be repaired more than a year ago.

Then, in the report of 1854, for the year 1853, I find this : —

A very recent examination of the aqueduct shows that the deposits mentioned in the last annual report have again taken place, and must be removed within a short time. The peculiar vegetable substance, occurring in patches of from one inch to one foot in diameter, and first discovered in the aqueduct last year, when it was confined to the mile nearest the lake, is now found in every part of the aqueduct, from the lake to Brookline reservoir. It is so tender, however, that the ordinary cleansing is sufficient to remove it. There is reason to believe that it grows very luxuriantly in comparatively still water.

That is from the Engineer's report. The Commissioners have the following : —

The vegetable substance, which is mentioned in the Engineer's report as having made its appearance lately in the aqueduct, is stated by botanists to be a species of *spongilla*, or fresh-water sponge. There is probably no way of preventing its growth; it is, however, easily removed. The only injury it is known to do is the clogging up of the screens at the reservoirs, and on this account it has become quite troublesome.

That was in 1853. Mr. Chesbrough, at the end of his report, makes the following remark : —

Very few complaints of bad water have been made during the year, although there was no general flushing of the pipes, and much less blowing off at dead ends than usual. The enormous quantity of water passing through the pipes daily, it was thought, was quite sufficient to prevent stagnation, except at the ends of courts.

In the report for the year 1854, the Commissioners say : —

While, however, the Water Board would congratulate the city on the sufficiency of the supply, etc., they regret to be obliged to report upon a deterioration of the quality of the water, which has recently been most unexpectedly found to be so universally prevalent as to be not only a source of much annoy-

ance to every water-taker, but also of solicitude to all who feel an interest in the welfare of the city. It was first observed in October last, and consisted of a marked and peculiar taste, resembling, in the opinion of some, that of *fish*, but we believe in that of a great majority of persons that of *cucumbers*, or some similar vegetable, the taste being accompanied sometimes by a disagreeable *smell*.

On the presumption that it was local in its origin, and, in fact, confined to the circulation in the mains and distributing service-pipes, they were all flushed out. This, it was hoped, would be a remedy for the trouble, as it certainly would remove all sources of impurity originating in and confined to the pipes themselves. It was, however, not the case; indeed, in most instances, the impurity seemed to be actually increased by the operation. There were also other anomalies quite difficult to account for. The water in the dead ends was frequently proved to be uninfected; on the other hand, in larger pipes, where the current was continuous and rapid, it was quite offensive. It was also satisfactorily ascertained that the water after being drawn a few days, lost all its repulsive character and became tasteless. There was in no case any appearance of fish, or any other foreign matter in the water, discharged from the hydrants and stopcocks. It seemed requisite to look beyond the limits of the city for the origin of the difficulty, and upon examination it was found that the water in the Brookline reservoir and the lake was affected precisely the same way. An analysis by a scientific chemist was ordered. Dr. C. T. Jackson and Prof. Hosford, of Cambridge, examined the water at different parts of the lake and at different depths, and some parts of the water-shed, and made a careful analysis of the water at the lake, and also in different parts of the city, without any disclosure being made to either of them of the places whence the several specimens of water had been taken. The investigation was conducted and the reports were made independently of each other, and without mutual consultation, and they did not, indeed, see each other's reports until they were printed. Both reports came to the same conclusion, that the impurity complained of is derived from vegetable decomposition existing in the lake itself, that it may be attributed to the unusually long and severe drought of the last summer, and to the subsequent rains acting on the peculiar soil of a part of the lake, and on the whole water-shed, and that complete relief might be anticipated from the natural agency of the approaching cold and rains.

A description of Lake Cochituate is given on page 15 of the report of the Water Board, and they tell how it can be affected. Then they say:—

Round pond, near Haverhill, which supplies the town, examined by the City Engineer, was found to be in the same condition, and Jamaica pond had recently been in the same state. Several wells near the lake, and in other places, have had their water affected in the same way, and the water in Chicopee river was, for a time, quite offensive. The Superintendent of the Albany Water-Works reported similar trouble in Rensselaer lake, whence their supply was derived in 1853. In October of that year complaints of a nauseous, fishy taste were made, and supposed to be occasioned by a small fish lodged in the supply pipes. The evil soon became universal, and it was obvious that the cause instead of being local was general. In some places the taste was accompanied by a peculiar smell, which was very offensive. The taste affected individuals very differently. Some thought it fishy, and to others it had the taste of cucumber so strong that there was nothing else to which it could be compared. A thorough examination was made, and the Superintendent was of opinion that he had traced the cause to grass, which was found growing in great profusion along the margin of the lake. The plant had shed a great quantity of seeds along the margin, and he found the water above it offensive, and when the water lying upon the seed was taken into the mouth he thought it impossible to doubt the origin of the impurity. The taste of the seeds was also highly offensive. The water was unusually high, and covers a luxuriant growth of the before-mentioned grass. On the presumption that this caused the trouble the water was lowered beyond the

reach of the plant, and in a few days was sensibly improved, and in three or four weeks it attained its usual purity.

That is the Albany report. The Cochituate Board say : —

They are not without proof that the same trouble which now exists had been observed in the lake in past years, though at a distant period of time. The chief cause of the impurity they attribute to long drought and hot weather which prevailed during the season, which reduced the quantity of water and exposed a large extent of marsh and peat land connected with the lake and over the water-shed, by which animal and vegetable decomposition must have been greatly promoted, and the products washed into the lake by the rains which began to fall about the time the offensive condition of the water was first perceived. If this cause was absolutely demonstrated as the true one, it would be expedient to stop the flow of the water from the peat meadows, or remove the peat, and thus carry out the plan originally proposed by the Commissioners, who early expressed their fears that the water might be contaminated by it.

I made a note that the expense was probably the reason the peat was not removed. They thought it might be too expensive to remove ; and then they say the cause is removed. They say it now demands their serious attention and earnest consideration — that is, the removal of the peat — and will have it. They refer to other causes which have been suggested, such as fish too abundant, supposed to be the cause by some, or too few, as assumed by others ; or sickness and disease among the fish. The presence of dead fish or fish-oil in the water, pertinaciously adhered to by some, is discredited entirely by the Board and the chemists employed by them. To the great majority of water-takers the taste appears to be a vegetable one, frequently compared to that of cucumbers ; and they have no idea that it proceeds from animal decomposition. Prof. Hosford makes a lengthy report, and winds up with the following paragraph : —

The recent peculiar taste of the Cochituate water is, in the judgment of the undersigned, due chiefly to extracts, more or less volatile, from the decaying minute aquatic organisms, for the most part vegetable, which, during the late prolonged drought, have been produced in extraordinary quantity upon the low meadow, marshes, bog and peat lands, which supply the surface-drainage to Cochituate lake.

Dr. Jackson closes his lengthy report in this way : —

I regret that we have not been able to settle all the interesting questions that have arisen as to the origin of the impurity complained of. This much we have done : We have proved that the peculiar taste of the water does not originate in the pipes, but starts at the fountain-head, and that it is not the result of animal putrefaction, but of vegetable fermentation, and that there is nothing deleterious in the water. There is good reason to believe that the unpleasant taste of Cochituate water is rapidly passing away from operations naturally taking place in the lake, and that the water will soon be as good as ever.

Then, in the report for the year 1855, the Commissioners say : —

There has been no complaint of any offensive change in the character of the water during the year similar to that of the previous one. The impurities of that year gradually disappeared, and were not perceived anywhere about the middle of February, leaving their cause and origin in entire obscurity. We still believe the most plausible suggestion was that made by the Water Board, and confirmed by the opinions and able researches of Drs. Hosford and

Jackson, that the remote cause was to be attributed to the long drought and heat of the summer, and the unusually low state of the water in the lake, and was the result of vegetable decomposition. If so, the evil was one we must probably contend with again, and it becomes important that the water should be continually watched during the summer, and the slightest deterioration traced, if possible, to its source. For a short period an impurity similar in character, but not so intense, was clearly distinguishable in the northern division, and at the gate-house. The cause was traced to Whitney's meadow, in the southern division, where it was quite offensive. A passage for the water had been forced over the dam which separates that meadow from the lake. The passage was closed at once, and shortly after the peculiar taste of the water disappeared. Dug pond was not admitted into the lake during the season. Snake brook was allowed to pass over the dam without any ill consequences.

The Water Board regret that their expectations of a speedy termination of the evil were not completely realized. Their own observation, and the information received from different parts of the city, induced them to believe that about the middle of January, or a little sooner, a decided improvement had begun in the water in the city, though it was still offensive, and at some times and places more so than at others. Near the surface of the lake it was then comparatively pure, but at the depth of twenty-five or thirty feet in the northern division, the repulsive taste continued about as manifest as it was previously. In the other divisions it was almost entirely tasteless. It was also discovered that the water of Dug pond, whose purity had never before been suspected, had undergone a similar deterioration, and at a depth of twenty-five feet clearly resembled that of the northern division, while at the surface it had no offensive taste.

The improvement, supposed to have been commenced about the middle of January, went on increasing until the 1st of February. At that time the water at the lake seemed to have acquired its former purity. Taken from every depth in the northern division it was entirely tasteless. In most places where the deterioration was marked and decided, there is now (February) no appearance of it.

The Engineer says : —

But very few of the peculiar vegetable substances heretofore mentioned were found in the conduit.

The conduit was examined in December, 1855, by the City Engineer and Mr. Knowlton. But very few of the peculiar vegetable substances heretofore mentioned were found in it. On the 28th of January, 1856, holes were cut in the ice in different parts of the lake, and water was drawn from a depth of sixty feet, and from various lesser depths. There was no perceptible difference in the taste, but it all appears pure and sweet.

In their report for 1866 the Board say nothing about quality of the water. The Engineer says : —

During the entire season the water has been allowed to flow freely over the meadows connected with the lake, and with Snake brook, and it has at all times been perfectly good.

Mr. SHEPARD. — Where is Snake brook?

Mr. FITZGERALD. — It is the nearest brook to the outlet of the lake.

Mr. SAWYER. — (Reading) : —

The conduit was thoroughly cleansed in July, between Charles river and Brookline reservoir.

In the report for 1857 the Board say nothing about quality. The Engineer says : —

The quality of the water is now very good, and has been throughout the year, except a few days in the fall, just after some heavy rains, when a slight vegetable taste, similar to what has been observed before, was found in it.

In the report for 1858 the Board say nothing about quality. The Engineer says : —

The water has been of the very best quality throughout the year.

In the report for the year 1859 there is nothing about quality. It appears that there was a break in the conduit about that time. In the report for 1860 nothing is said about quality. In the report for 1861 the Board say : —

The quantity and quality of the water supplied to the citizens have been entirely satisfactory.

In the report for the next year (1862) nothing is said about quality. The interior of the aqueduct had been thoroughly examined and cleansed.

In the report for 1863 the Engineer says : —

The conduit was thoroughly examined in July and was found quite clean, with the exception of a small section between the lake and Station 100, where there was a considerable accumulation of the peculiar vegetable, spongy, matter referred to in previous reports.

The Board say : —

The aqueduct (interior) has been thoroughly cleansed and examined a number of times by the Board, the City Engineer, and the Superintendent of the Division.

The Engineer says : —

The water has been shut off for examination, cleansing, and repairs ten days in all during the year.

In the report for 1864 the Board say : —

The water in the conduit has been shut off during the year four times, in order that it might be examined, cleansed, and repaired.

In 1866 they began to make their reports in May, and this report is for sixteen months. They are apprehensive of a short supply, and say the aqueduct was emptied twelve times during the year and examined by the Commissioners, the City Engineer, and Superintendent. The Engineer's report says : —

The section from the lake to Dadmun's brook waste-weir was found to be coated with the peculiar vegetable matter alluded to in former reports, and has been thoroughly cleansed by the Superintendent.

Nothing was said about quality.

In 1867, in the report from May, 1866, they say that portions of the conduit were examined several times during the year. There was a great freshet in July, and the level of the lake raised eight inches in twenty-four hours. Nothing is said about quality.

In May, 1868, the Board say that the Brookline reservoir had not been cleaned out for over ten years. An examination of the interior of the conduit was recently made, and it was found to be very dirty and slimy, and should be cleansed before hot weather.

In the report made in May, 1869, the Board say there was an examination of the conduit in one day ; the general condition was found to be the same as at the last examination. They say : —

The dirt and slime in the section of the conduit near the lake should be removed at once.

Other portions of the conduit are reported as clean.

In May, 1870, the Engineer says :—

The annual examination of the interior of the conduit was made last month. The condition was much the same as last year. The section from the lake to Dadmun's brook was very dirty, even worse than last year, but since the examination it has been thoroughly cleaned.

In May, 1871, they report that the conduit was examined in April and found to be generally in a clean condition ; very little dirt, and most of that in the tunnel.

In May, 1872, they report that there was a drought during the year 1871, and it is referred to by the Board as causing great anxiety. That was the year when Mr. J. P. Davis entered upon his duties. The conduit was not examined at all.

In May, 1873, they report that the conduit was examined on Oct. 12 and 13, 1872, and found to be in good condition ; but in the transcript of the record is the following : —

For a long distance (from the gate-house to Dadmun's brook) the bottom is very sandy, and the sides are covered with a substance resembling sponge ; there is considerable moss on each side of the conduit, and considerable fungus.

Mr. Stanwood, the Superintendent of the division, in his report, says : —

The section between the gate-house and the waste-weir, at Dadmun's brook, was found to be very foul, being covered with a vegetable growth and a great deal of sand on the bottom, that was carried in by the pumps.

That was the year they pumped, on account of the water being low. (Reading) : —

October 25th the water was drawn off and kept off four days, and the section that required to be cleaned was attended to.

In the report of May, 1874, it appears that the conduit was examined November 19 and 20, 1873, and again April 14, 1874.

In the report of May, 1875, there is the statement that there was drought and pumping in 1874 from September to February, 1875. The conduit was examined December 3, 1874, by Wightman and Cunningham. The Superintendent of the Western Division gives with his report a table of all recorded examinations of the aqueduct.

In May, 1876, the report says the conduit was examined July 27, 1875, and there is the following statement : —

Early in October, 1875, complaints began to be made at the office of the Water Board that Cochituate water tasted badly, and was unfit for use. The taste was variously described ; some thought it like cucumbers, others like fish-oil, still others like dead leaves ; but, as a rule, it was spoken of as a cucumber taste. At first, the complaints came from the South End and

Back Bay; later from the West and North Ends; finally from South and East Boston. Even after the taste became very wide-spread, people living where there was but little circulation in the pipes, as in some parts of Dorchester, reported that the water supplied to them was unusually clear and sweet.

October 23d the lake was visited and samples of water taken at various points and at all depths; but not the slightest trace of the peculiar taste could be discovered. Samples taken where the water was shallow, and some from points near the bottom in deep water, had the earthy taste of pond-water; but the greater portion of them were clear and tasteless.

October 26th the Brookline and Chestnut-Hill reservoirs were visited; but no cucumber taste could be detected in the water contained in them. Water taken in front of the screens of the efflux gate-house at Chestnut Hill was tasteless, but a sample taken from behind them, at the mouth of the outlet pipe, had the cucumber taste in a slight degree.

At that date the taste may be said to have been confined to the water in the pipes, but the next day it was discovered in all parts of the Bradlee basin of Chestnut-Hill reservoir, having spread through that large volume of about 500,000,000 gallons of water in one night, apparently. A thunder shower and violent winds and agitation of the water during the night may have aided in developing the taste. The reservoir was shut off immediately, and in a short time no taste could be detected in the water delivered in the city, indicating that the trouble originated in the reservoir, or, at least, that the conditions necessary to develop the taste existed there.

On the night of December 3d the gate was opened about one foot, and three or four million gallons of water let into the distributing pipes; but the effect was so disagreeable that the gate was closed the following morning. The trouble continued until April 1, when the water was let on to the city, and the reservoir has been in constant use since.

Professor Nichols, of the Institute of Technology; Mr. Edward Burgess, Secretary of the Boston Society of Natural History; Professor Farlow, of Harvard University, made thorough examination of the water during the year, which are all given in the report.

The report of May, 1877, says:—

The water from Cochituate lake during the past year has been of good quality, and no complaints have been heard from any quarter. The unaccountable cucumber taste, which for a while shut out the use of the Bradlee basin of the Chestnut-Hill reservoir, to which it was confined, has unaccountably disappeared, and since the gate was opened, on the 1st of April, 1876, the basin has been in use, and the quality of the water unexceptionable. The mingling of the Sudbury with that of the Cochituate water has had no unfavorable effect on its quality, and there is every reason to believe that the quality of the Sudbury-river water, when the works are completed, will be perfectly satisfactory.

That brings us up to the time of the Boston Water Board.

Now, I have here the report of Professor Nichols, who made weekly examinations; but I will read on from my memorandum:—

The conduit was examined (says the report of May, 1878) but once, May 8, 1877. A certain amount of brushing and cleaning was done. No complaint of the quality of the water was made.

In the report of May, 1879, there is an interesting statement of Professor Ripley Nichols, giving the results of his analysis of the water supplied by the Cochituate works. As in previous years there is some variation from time to time in the quality of Boston water; but he concludes his paragraph on this subject with this remark:—

We have every reason to congratulate ourselves upon the character of our water supply.

The Engineer says the yearly examination of the conduit was made June 11, and no noticeable change since the previous examination was found.

I do not know but that covers the whole ground. Professor Nichols made these examinations. His reports are included in the annual reports of the Boston Water Board, and they speak for themselves.

But after this trouble with the Chestnut-Hill reservoir, we had frequent consultations with Mr. Davis, and Professor Nichols was employed at the time, and he was making weekly examinations of the water, the results of which are all here. The result of those examinations was that he said there was nothing objectionable in the water, and we had reason to congratulate ourselves upon the character of our water supply. Those results are all recorded in the reports of the Boston Water Board, and they speak for themselves. But the question is often asked, What have the Boston Water Board been doing about this trouble? They were in with the most eminent professors, chemists, and engineers, getting advice and information from them. Professor Nichols was making weekly examinations, and doing what it was impossible for the members of the Water Board to do themselves.

I have some more memoranda here. In the report of 1879 the Engineer says:—

The yearly examination of the conduit was made June 11, 1878, and no noticeable change since the previous examination was found.

The examination of a part of the conduit was made by F. O. Stearns, who says in his report:—

Some workmen were scraping the sides over the gate-house. I noticed after passing them that the vegetable growth had increased, and that it extended, although diminishing, nearly a mile from the gate-house.

Mr. Stearn's examination was from Lake Cochituate to Dadmun's brook.

I have a memorandum here that Reservoir No. 3 was filled for the first time in December, 1878.

In the report of May, 1880, the Engineer says:—

The quality of Cochituate water has been good throughout the year. The Sudbury has been somewhat colored, and at times has a slightly bitter taste, which was noticed in the city late in the fall, when the river water was sent directly into the distributing pipes without passing through Chestnut-Hill reservoir. The rest of the time Cochituate and Sudbury were mixed.

In the early part of September an abundant growth of *algæ* developed itself in Reservoir No. 3. It was immediately isolated from the rest of the supply, and owing, probably, to that precaution the *algæ* did not show themselves, except in small quantities, in Basin No. 1, Farm pond, and Chestnut-Hill reservoir. The presence of *algæ* in Basin No. 3 was observed until the beginning of December, when the water, having resumed its former quality, it was drawn as usual for the supply of the city. These microscopic *algæ* were of two kinds, one having a somewhat globular form, the other presenting the appearance of a curved string of beads. The cause of their growth is not known, and no known remedy can be applied. The formation of *algæ* seems to be wholly independent of the depth of the water, but closely

follows the change of temperature, increasing when it rises, and diminishing when it lowers.

There were no *algæ* in Basin No. 2. The clathrocystis (*algæ*), another kind, appeared in Horn pond in large quantities in July, and found its way into the Mystic and the distributing pipes. It could not be stopped with screens.

Then Mr. Davis made a report upon filtration, and Professor Nichols another on *algæ*. Then the Superintendent discovered fish dying in Chestnut-Hill reservoir, and that was referred to Professor Nichols, who gave as a cause a vegetable parasite attaching itself to the skin of fish, and feeding on their bodies. This disappeared in a few weeks.

In May, 1881, the *algæ* were reported to have appeared in basins Nos. 1 and 3, and the cucumber taste in Lake Cochituate, which is so recent that you all know about it.

I thought it certainly would be useful to me, and that it might be well for the Commission to know what had been the history of the trouble with the water. I think that if you read the reports you will find that from the very beginning, or within a very short time, they began to complain of the water. In some seasons it has been very marked.

I do not know how far the Commission want to go over this ground, and I don't know but they have already been over it. It has required some little labor to go over what I have done; but it is an interesting account of the trouble with the Cochituate water long before the Sudbury-river supply was thought of or used; and there seems to be some similarity in the experience with both supplies.

Dr. BLAKE. — All the reports seem to point to the same causes of this cucumber taste, and all seem to depend upon the presence of the *spongilla*, — although it was not always recognized as being present.

Mr. SAWYER. — I do not know how far it might be attributed to that cause. They seem to have spent some time upon it, and mention it as being found.

Dr. BLAKE. — But they do not seem to connect the smell of the sponge with the cucumber taste; whereas Prof. Remsen does make such a connection.

Mr. SAWYER. — Yes. As will be observed, there was a time when the question with the Cochituate Water Board was, whether they did not make a mistake in not removing the peat from the shallow places in Lake Cochituate. They did not consider it absolutely essential, and it was not removed. But afterwards, when they raised the question again, the water became all right, and then they thought it was not worth while to remove it.

Dr. BLAKE. — But that seemed to connect the lowering of the water, and the consequent exposure of these wide margins and flats, with the disagreeable taste of the water.

Mr. SAWYER. — Yes, sir. I have made these notes and read them without any opinion; but merely to get at the facts. There is one thing more. When I was on the Board before, if anything came along that was interesting I used to pick it up and put it

away for future reference. Among other things I came across this document on the New York water supply. What I want to call attention to is this: It has been mentioned here, and the impression was left, that the Croton water was better than ours, and that no fault had been found with it. Now, I thought I would take the following extracts from the editorials of five leading New York papers, in regard to the threatened calamity from this source. This was in 1876. The title of the pamphlet is "New York Water Supply," and was published in 1876. Reading:—

OUR FILTHY AND DISGUSTING CROTON.—Our people are, perhaps, not fully aware that they are daily pouring down their throats water absolutely reeking with filth of the most disgusting quality. In a show window at the corner of Broadway and Seventeenth street there are now on exhibition two jars of water, —one containing a yellowish, dirty liquid, somewhat like kerosene. That is our Croton, from the regular supply-pipe. It would be amusing, if it were not so serious a matter, to witness the astonishment depicted on the countenances of the people that congregate there, contemplating the serious effect on their health and that of their children, as it occurs to them that this liquid is their daily drink. Something must be done, and that quickly, or the health of more than a million of people will be imperilled.

Many private families and hotels are resorting to other sources for water for table use.

Through the Croton valley are stables, slaughter-houses, and privies, drained into the water that New Yorkers must drink.

An examination of the Croton shed showed a general destitution of water prevailing the whole section. Croton lake is a reservoir of filth, and the storage reservoirs a repository of farm filth.

MALARIA IN CROTON WATER.—Dr. Lente, a distinguished physician of Cold Spring, Putnam Co., attributes the malaria in this city to the drawing down of the reservoirs and lakes in this county to supply the Croton. The general effect of the present system is to expose thousands of acres of land previously under water to the air, rotting and parching in the sun, then steeped in rain-water with the first shower, which, when thus polluted, finds its way to the city conduits.

THE CROTON CESSPOOL SYSTEM.—Is it possible that the engineers of the Croton aqueduct cannot devise a remedy for the fearful evils that surround us, arising from an impure supply of water to this city? Have we reached the limit of an engineering skill in this respect, and is the condition of the Croton water to grow from bad to worse? These are questions which every intelligent citizen of New York is asking just now, in view of the formidable dangers to the public health, which the horrible condition of Croton water creates.

THE FOUL CROTON WATER.—The truth is that our water system is being botched, and no amount of scientific twaddle can conceal the fact. Water that is charged with objectionable animal matter, the drainage of farm lands and swampy grounds; and, in fact, made the medium of conveying away the refuse of a thickly settled region, cannot be filtered by "contact" with the great motionless mass of water at the dam; neither will the bright idea of cleaning the park reservoirs help matters. The supply is poisoned at its source.

THE CROTON SHAM.—The whole Croton system is a sham and a delusion no longer endurable. It is a fraud on the people to spend another dollar to perpetuate it. Better go to Lake Ontario at once, if necessary, —no matter what the cost, —rather than suffer the losses and discomforts entailed on this great city through this great deception. It is notorious that for the last five years there has not been a dwelling-house in the higher districts that has had a flow of water above the second story, and much of this time manufacturers and others have been scrimped and often compelled to suspend business altogether, because of the meagre supply. This condition of things began in 1868, and has been growing worse ever since, until it is no longer bearable. For the hundredth time we are now told again by the officials not to be alarmed,

that there is an abundance of water lying around loose up in Putnam and Dutchess counties, and it only needs plenty of new ponds to give us a bountiful supply. We don't believe it. We were told the same thing repeatedly when the new Boyd's reservoir was under construction, and, if possibly that failed to meet the demands in time of great drought, then drawing down the lakes was certain to supply the deficiency. Boyd's reservoir has been finished and filled, and the last drop drawn out of it. The lakes have been drawn from to an extent never intended, threatening the health of the entire section, and arousing the indignation of Putnam county residents; and still we are suffering from thirst and famine in the city never before experienced. Away with any more promises of reliance from that section; but let us demand that those whose business it is shall look, without a day's delay, to some other source of water supply for this famishing population, which will guarantee an abundance of pure quality now and for all time.

I read these not for the purpose of having any effect upon this investigation as regards our water supply, because it seems to me that it is very important that what this Commission was appointed for should be attended to; but I read them to show that they have had the same state of things in New York that we have had here.

STATEMENT OF SAMUEL H. DURGIN, M.D., CHAIRMAN OF THE
BOARD OF HEALTH OF BOSTON.

The CHAIRMAN. — Dr. Durgin, the Commission would be pleased to hear what your opinion is in regard to the water, and what the cause of the impurity is, whether you consider it bad for the health of our citizens, and whatever remarks you would like to make.

Dr. DURGIN. — I do not know particularly why I am summoned before the Commission, except from the position I hold, and from the fact that for the last two years in the reports of the Board of Health I have taken occasion to reflect what seemed to me to be the popular feeling in regard to the water supply. I do not come here to-day of my own accord. I came because you have summoned me, and I am not here to attack or defend anybody whatever.

For the last two years it has come under my observation and notice that there has been quite a considerable dissatisfaction among the inhabitants of Boston in regard to our water supply, and it has come under my own notice that the taste and appearance and the smell of the water we have used were not pleasing. From some examinations which have occurred to me, it has seemed that the water was not of the character that it ought to be. Whether it was all that we could reasonably expect under the circumstances is something that I am not prepared to say. I do not know that I have anything to say further than I have said in the last two reports, and which, as I said before, reflect that feeling which I have gathered from those who have complained of the water to us, and as I have gathered from the expressions outside of the Board of Health office.

There have been a great many complaints from different classes of persons in Boston for the last two years. I have always referred people to the Water Board and the City Engineer, the parties who were entrusted with the care of the water supply. In one in-

stance I had a specimen of the water taken and given to Professor Wood to examine, with the result which has been recorded in the Board of Health reports, expressing the fact that there was an excessive amount of vegetable matter in the water, although not, in the opinion of Dr. Wood, to a dangerous extent. Last fall, owing to some investigations that the Board were pursuing, we went up to the source of the water supply at Sudbury river, and saw the basins and Lake Cochituate. We found Farm pond containing water in every appearance like that which we are getting at our faucets — colored, and having the same cucumber taste such as we got in the city. We also found that same taste in Chestnut-Hill reservoir, but I think not elsewhere. In Basin No. 2, which is the upper basin on the Sudbury river, the water was in a fair condition, somewhat colored. In Basin No. 1 the water smelled very badly; it was bad in Basin No. 3 the same. Lake Cochituate and Brookline reservoir seemed to be in good condition, except at the northerly end of the lake, where there was a portion of the dam off, which was in a very filthy state indeed, receiving the drainage from a portion of Natick. That water was being filtered through a dyke of sand or gravel into Lake Cochituate. Although the water below it did not contain the filtering particles that the water above it did, the taste and condition were not so very different. This was to me a disgusting appearance.

I would say, in behalf of those who complained to the Board of Health, that if it is possible to improve the water, it seems to me that it is due to the citizens to have it done. I should say, as a citizen of Boston, that I am not pleased with the taste, the appearance, or the smell of the water to-day.

Mr. GREENOUGH. — What do you mean by to-day, doctor?

A. The most of the time for the last two years, and I should say that even to-day, it does not seem to me, from my own unaided senses, that the water is quite as good as it ought to be.

Mr. GREENOUGH. — You said the water was analyzed by Prof. Wood, and he thought there was too much vegetable matter in it, although not enough in his judgment to be dangerous. Is that what I understand?

A. Yes, sir.

Q. What danger would you expect from an excess of vegetable matter?

A. I should expect, in a certain class of persons, it might unfavorably affect the digestive organs.

Q. In what class of persons?

A. The weak and sickly class.

Q. Would the fact that it did so be brought under your attention as Chairman of the Board of Health, in any way?

A. I do not know that it would specially. We do not get sick reports, we get death reports. If there was a certain disease prevailing which might be attributable to some special cause, it would come under our notice directly or indirectly, and would be likely to set an investigation on foot. But the matter of saying that a certain person has been made sick by drinking Cochituate water is not easy of demonstration. There are many causes of

disease, we might say, which we believed to be such, but yet are not susceptible of the easiest demonstration. I do not know that I have been mindful of any special case of disease brought about by drinking this water. Neither do I believe it is necessary that we should have found some person ill or dying, as a direct result of drinking this water, in order to say that the water is not good or healthy to use.

Q. So far as the vegetable matter goes you think it would, probably, unfavorably affect the digestion, although no special case has been brought to your notice as Chairman of the Board of Health?

A. That is the proper statement.

Q. Now, if the water had an excess of sewage in it, the tendency would be toward typhoid fever, would it not?

A. I do not know as I am able to say it would produce typhoid fever. It might produce other diseases.

Q. But so far as excess of sewage, chemical analysis does not show that? Although the water coming into Pegan brook is very filthy, the general effect upon the water supply is not perceptible?

A. I do not know that the effect of Pegan brook upon our water supply here in the city has been demonstrated at all. Neither would I regard it necessary to demonstrate at this end of the pipe that there is an element of sewage at Natick, in order to say that that is wrong and should be remedied.

Q. Now, as Chairman of the Board of Health, you must be cognizant of laws affecting the pollution of water supplies, are you not? Or, does not that case come under your jurisdiction?

A. I do not know the special application of your question.

Q. I want to know whether you are familiar with the laws which govern the pollution of water supplies in this State?

A. No, sir; not specially familiar with them, having nothing to lead me to study them specially. We have not the slightest thing to do with the water supply.

Q. Not with the enforcement of the laws?

A. No, sir.

Dr. BLAKE. — Not specially, but professionally, you are familiar with the general causes of pollution?

A. In a general way.

Q. And in connection with the water supply have you formed any opinion as to the causes of the dangers which exist?

A. I have gathered some general notions in regard to it. They are not what those chemists, and men who have given special study in that direction, would be, — not by any means.

Q. Well, as a physician in charge of what we may call the sanitation of the city, you have given more than an average physician's attention to the causes of disease? Now, looking at it from that point, and from your knowledge of the diseases prevalent in the city, do you think the presence of a large amount of vegetable matter in any way contributes towards the sickness of our community?

A. I should not have the slightest doubt of in the world.

Q. That is, you have no doubt that a certain class of idiosyn-

crasies are affected by water which would not be dangerous to the great mass of people ?

A. That is a fact.

Q. So that without being able to come to it directly, still you, as a physician, recognize its effect upon certain classes, while it would not affect the entire community ?

A. The effect of a change of water, or, perhaps, a storm, might have a general influence upon the community, that would be general, not special. The lightning may strike, and you can see just who it hit, and say the lightning did that mischief. But, in the water supply, you may have a degree of pollution which you may say, in a general way, debilitates. It does not do the work of pure water for the human economy ; but you cannot say, perhaps, that that child or that woman, or that man, died because he drank that water. You may be able to say that that person was unfavorably influenced by drinking water, which was not of a good quality.

Q. Diarrhœa or imperfect digestion might be the result of drinking water, which, to a robust person, might not be dangerous ?

A. Certainly.

Q. And you have had instances of such cases brought to your notice ?

A. Yes, sir. It is within a few days I have heard a very honorable physician of our society say that he, himself, was very unfavorably affected, — speaking in the most confident, positive way, — by drinking the Cochituate water, — a man who has been very highly honored in this State and by his profession.

Q. In the analysis made by the Board of Health of the water, what has been the result as to the amount of solid matters found in the water, — what percentage ?

A. I have them not. It is in the report of the Board of Health of 1881, with remarks. The remarks were brief, and by Professor Wood, and to the effect that there was an excess of vegetable substances. I should say, perhaps, only in guessing at it, that there was double the amount of vegetable substances that there should be.

Q. Have you any account of the methods of purifying water ; have you any suggestions of a remedial character to make ?

A. I have thought that if we are to continue our water supply by means of rivers and storage-basins, those basins should, in the first place, be deprived of the vegetable substances and loam which we know are very likely to give rise to the growth and decay of an excess of vegetable matter, which is almost necessarily the case where there is a rise and fall of the water, and that they should be properly prepared ; that they should have a uniform depth, if possible, and that they should be deprived of vegetable substances.

Mr. SHEPARD. — You say if we are to continue that means of supply ? Do you know any other means of supply that Boston can get ?

A. There is sometimes a doubt expressed in the minds of some people as to the desirability of getting a water supply by means of rivers and lakes, they being so constantly subjected to lowering

and raising, and needful cleaning, which always means mischief. You cannot drain off a lake or pond or basin without killing off all the live animals and exposing surfaces to a condition of air which is uncommon to it, and thereby giving rise to a vegetable growth which must die after the basin is filled again; and therefore, after a time, get impure water from the death of the animal organisms, and from the death of grasses and other vegetable growth. In view of all these liabilities it has sometimes seemed to me as if it would be a better plan to take the water from the surface by excavations, so that the water as given to the people should be filtered so as to be of uniform temperature and be clear of objectionable particles and have that advantage which water gets by being filtered through deep soils. I do not know whether any such advantage is to be gained about Boston.

Mr. GREENOUGH. — Do you mean in the shape of artesian wells?

A. No, sir; but excavations in places where a proper supply could be gained, and pumped to a sufficient elevation to supply the city. This is only, perhaps, speculative, and I did not intend to mention it.

Mr. SHEPARD. — I only asked about it because you said, "If we continue our present supply," and I thought perhaps it might have occurred to you. I should like to ask if you know of any community which is supplied in that way?

A. I cannot give you the exact fact, but my impression is that in some parts of Germany this same plan has been adopted. I have not pursued this sufficiently to give you all that I could wish in this line, not expecting to be called upon at all, and it not being in my direct line of duty; but I think you will be able to get at those gentlemen who have had opportunities for travel and study which have put them in possession of these facts. Of course you all know that there are difficulties which are almost entirely insurmountable in keeping up uniform purity in the waters in rivers and basins and lakes. There are many difficulties in the way. If we continue the present method, those difficulties should be reduced to a minimum, at whatever cost. The community should be made to feel that every means that is possible has been adopted to give us a uniform and pure water to drink.

Mr. DESMOND FITZGERALD. — If it be allowable I should like to ask the doctor one question. I admire the spirit in which the doctor has pursued the investigation, and I only wish all had manifested the same feeling. You say the basin drawn down necessarily exposes flats which produce a deleterious quality of water. I want to ask you if you mean by that a pond which is already formed with natural borders of gravelly soil — whether the water in that lake is made deleterious by exposure, or whether you simply wish to confine it to a new structure?

Dr. DURGIN. — If you have a natural lake for the supply of water, and at one season of the year that lake is several feet lower, with sloping borders, and vegetation forms there at times, and then is filled again, I understand that the vegetation which springs up at a low depth of the water, or on exposure, will die after the

water rises again, and be capable of exhaling and affecting the water of the lake.

Q. Is that founded on a particular theory or facts or observation?

A. That is only my belief in a general way.

Dr. BLAKE. — It seems to me, in reply to Mr. FitzGerald, that among the extracts read by a member of the Water Board here, the same remark was made in relation to Lake Cochituate, which is a natural pond of water; and when the water was drawn down five feet in depth, the exposure of the margin was supposed to result in exactly that change of the water.

Mr. FITZGERALD. — I should like to have a word to say later about that, if I may be allowed; but still I do not wish to interfere at all.

Dr. BLAKE. — Certainly.

The CHAIRMAN. — If Dr. Durgin has nothing more to suggest, we will hear what Mr. FitzGerald has to say.

STATEMENT OF DESMOND FITZGERALD. — *Continued.*

Mr. FITZGERALD. — I do not wish to take up the time to discuss any theories, if it is too late. But there are one or two points I should like to speak about, if allowed, without going into the subject fully. There have been so many statements thrown out in the public prints, and in a great many different ways, in regard to the management of the Water-Works, that I have taken the thing somewhat at heart myself, and from the opportunities I have had for practical observation I thought there were some things I should like to speak about.

And in regard to this drawing down of natural lakes, my observation has been such that it does not exactly coincide with what Dr. Durgin has stated here. I believe myself when a pond or basin is newly filled, and new areas are covered with water, and those are exposed, that the effect upon the water for, perhaps, several years to come, is, perhaps, deleterious. But after the lake or pond is formed, and its borders are formed, the same as Lake Cochituate now is — and Lake Cochituate, you must remember, was raised twice, both times by Act of the Legislature; the first time the natural high-water line was about five or six feet above the flume, and it was raised to eight feet; and then to ten, making certainly five feet, and the result was — and those notes of Mr. Sawyer are exactly what I should look for as a result — that the water was bad for several years; but now the water in the lake certainly is never better than when it is low. If you go all around Lake Cochituate, and take water from certain depths, you will find it is clear, and as fine water as you find anywhere; but the opposite is sometimes the case when the lake is full. So I do not think it follows that when the lake is drawn down the effect upon the water is bad. It seems to me the effect has been often good. Even in Lake Cochituate, which has remarkably fine, sandy borders, there are quantities of plants growing. You may see them stretching from the high-water line to six, eight, or ten feet be-

low. When the water is drawn down in the lake, and we use it as storage-water, those plants die off. I believe it actually results in good to the water, after an artificial pond has become like a natural one.

Now, gentlemen, in almost all these discussions which have occurred, the great question which has agitated the minds of the Water Board and all its officers — and I should prefer to hear the City Engineer speak on this subject rather than myself — has been that of quantity; how to keep this great city, which is growing so fast, supplied with an adequate supply of water. You will realize this when I say, that in 1877 our consumption was only about twenty-one millions of gallons a day. Since that time we have had built this large system of works and put it in running order, and we were delayed a number of years on account of the action of the City Government, the Board not having the funds to proceed, and at the last moment those basins were filled, and the water had to be rushed in immediately to supply the city. Almost every year since that time we have had such periods of drought that the water in the storage-basins had to be used before the period in which it should have been stored had passed.

Now, my own opinion is, that the water will improve rather than deteriorate in quality. The only thing I can hope for is, that the City Government will give us funds enough to complete the whole system of basins on the Sudbury.

Here I may say that when the Sudbury scheme was broached, the most careful examination was made by all the experts who could be summoned on the question. Every source of supply was examined within fifty miles of Boston. Thirteen different schemes were studied, not only in reference to quality but quantity of water, and from every point of view. I believe fully that we have in the Sudbury river the best source of water supply within reach of the City of Boston.

It is impracticable to furnish water in the way Dr. Durgin speaks of, from filtering galleries. In Brookline they have had difficulty in doing it, and have had to extend their galleries. But the amount of water that can be procured from filtering galleries under ground is very limited indeed.

Mr. WIGHTMAN. — I made a statement here at the last meeting that there was great complaint about the quality of water, and that there were large quantities of *algæ* in the water. I do not know whether you noticed them, but you know there were complaints about the quality of the water. I have seen the water green myself.

Mr. FITZGERALD. — Yes, sir.

Mr. WIGHTMAN. — I only wanted Mr. FitzGerald to confirm the statement I made.

Mr. FITZGERALD. — I only want to say, in regard to this question of water supply, that people are apt to go too much into details and overlook the great questions which should really engross attention. I have been fairly astonished at some of the statements published by a gentleman before a scientific society. I may be pardoned for referring to this, because some of the figures he used

were given to him by our department, and he has so misused them as to dishonor his own city. They can be proved to be utterly false, whether so wilfully I do not wish to say, because I do not wish to misjudge a man's motives. But in this article, published in the "Boston Herald" of last Sunday, a paper read before the Medical Society, the statements, so far as the engineering questions are concerned, and as concerns the water supply, are grossly inaccurate. If I only had the time, and if the gentleman were here, I would be glad to expose them fully, because we have the proof in our own hands.

Mr. SHEPARD. — Will the supplementary supply be sufficient for the city when all the basins are completed?

Mr. FITZGERALD. — You have the City Engineer here and I should prefer to have him state. But when the scheme was adopted it was estimated for forty million gallons a day, that is, when you developed the storage capacity itself. Until you do that and allow a little margin, so we shall not be pushed to run water into the city before it should be used, we shall be troubled with this excess of vegetable matter in the basins. I do not think it is proved that the loam is the immediate cause of it. In Basin No. 2 we have as much loam as in the other basins, and we have always had good water there. It is an extremely difficult question, and I do not believe any person who studies the question several months, with the immense quantity of facts on record, will wonder that it is complicated. Yet the question can be cleared of many of these complications and made very simple by keeping the main facts in view.

Mr. GREENOUGH. — Have you any recommendation personally as to the possibility of improving the water?

A. No, sir; but I feel confident that if the City Government were to appropriate sufficient money to develop the whole scheme of the Sudbury river, it is the only practical way of improving your water, except by a scheme of filtration, which will be at a vast expense.

Q. That is to say, to have a large excess of water supply?

A. Sufficient to supply the city when it is needed, and we are very much crowded now. When the water was first introduced into Boston, in 1848, the people generally supposed that they had too large a supply, and that the engineers had been too extravagant. Mr. Bradlee knows all this. But in less than ten years the Water Board had to resort to advertisements in the public prints to warn people to be more careful in the use of water. In 1867 Lake Cochituate was too small to supply the city of Boston, and yet they had to work along until 1871 before anything was done to increase the supply; and, then, the fact must not be lost sight of that those basins were filled in 1878.

Mr. SAWYER. — As early as 1857 the Water Board were calling the attention of citizens to the excessive waste, and telling them that if they did not be more careful they would come to want; and it ran all the way through.

Dr. BLAKE. — I should like to ask Mr. FitzGerald the question whether he thinks the causes of complaint concerning the water would be remedied if we took away the loam from the basins, — if that is something which ought to be done?

A. Well, sir, I think really the causes of complaint last year were ascertained by Prof. Remsen. I think every fact there shows conclusively that the trouble then was confined to Farm pond and to the causes which he described. When we drew down the water we found it exactly as he said we should. The bad taste was confined to that basin; but, unfortunately, we were obliged to run all our water through there; so all our water was polluted at that time. But I believe it was the same with Lake Cochituate, and it was confined to that period, and the water afterwards changed its character. It is something which is liable to come into any source of water supply.

Mr. GREENOUGH. — Take the yellow color and muddy taste to-day, — do you not suppose it is attributable to the loam in the basins?

A. No, sir, and I can tell you why. If you go to the head of Basins Nos. 2 or 3, and take specimens of water there and compare them with the Boston water, you will find them more tinged. The water in Basin No. 2 is undoubtedly improved in the passage through the basin, so far as I can judge; I am not speaking chemically. But the water at the foot of Basin No. 2 is clearer than where it goes into the basin.

Dr. BLAKE. — Do you not believe that is the cause, and the removal of it would remedy the evil?

Mr. GREENOUGH. — He spoke of the color particularly.

Dr. BLAKE. — He spoke of the color and taste.

A. I was speaking of the color more particularly. In regard to the taste, do you mean the taste at present?

Q. Yes; if the taste is not the result of the maceration of this vegetable mould, what benefit would result from your long storage after the Sudbury system is developed? I take it your plan is to allow the water to stand three years, and allow the decomposition to take place?

A. Of course in the spring you would naturally wash the basins out. The basins would have to form naturally, of course; they would become gravelly, and the whole water would be improved undoubtedly.

Mr. GREENOUGH. — Isn't there considerable loam, on the sides of Basin 3, which is washed off?

A. Yes, sir; I think there is.

Q. Would it not be an improvement to Basin 3 to have some loam removed from it?

A. I cannot say it would. I have tried to look into it, and I do not think any gentleman who has looked into it carefully could not say the same. Prof. Remsen came to the same conclusion. I do not think anybody can say that the loam is the cause of the taste in our water to-day.

Dr. BLAKE. — If you take a gallon of water and a small portion of loam, and put them in a bottle, you get an infusion of that material, don't you?

A. Yes, sir.

Q. Now, it may not be deleterious to health, but it is going to affect its color and taste?

A. Yes, sir; but why hasn't it done so in Basin 2?

Q. It has gone through the process?

A. No, sir; there was only about one season difference.

Mr. GREENOUGH. — The water is coming through Basin 2 to-day?

A. Yes, sir.

Q. It has this earthy taste?

A. Yes, sir; it has a slightly earthy taste; but I think it is worse in the city than at the basin.

Dr. BLAKE. — Does it mix with any other water, to pollute or deteriorate it?

A. I cannot speak of it accurately. During the whole season you get a change of water. During the whole summer we had to draw from Basin 3.

Q. Are we drinking from Basin 3 now?

A. No, sir; not since September.

Dr. BLAKE. — I think it is nothing but just to the Water Board that any erroneous remarks made to scientific bodies should be corrected.

Mr. FITZGERALD. — I have on my desk enough to fill two or three volumes; and there are so many mistakes it would be too much to attempt to correct them. But the principal objections I have to the article referred to previously are the statements about the measurement of the water, which are perfectly absurd. He said the estimated capacity is a hundred and thirty million gallons. There is no such estimated capacity. You will find the facts about that printed on our records. We have what we call our available capacity, which is always reckoned from a point above the bottom of the aqueduct nearly to high-water mark, because when we get below that we do not consider the water at the bottom of the pond of available capacity.

Mr. WIGHTMAN. — It is a question of head also?

Mr. FITZGERALD. — It is a question of head. Then another point here is very erroneous, and which he makes a great deal of. He says that on June 28, 1882, — just see how accurate he is in mentioning the date, — “Thirty men were employed to scrape the *spongilla* from the walls of the new conduit and in removing a large quantity of sediment extremely offensive in odor.” Now, gentlemen, I will state to you on my honor that we never have had a particle of *spongilla* in the new aqueduct. I ought to know if anybody does.

Mr. GREENOUGH. — It was in the Cochituate aqueduct?

A. Yes, sir. He reasons from this, that having cleaned it in November, what an enormous deposit there must have been since then.

Mr. WIGHTMAN. — We did not find any in November?

Mr. FITZGERALD. — No, I never found any there. I could go through the whole article, and show that it is full of the same statements.

Dr. BLAKE. — I have a letter here from Dr. Barnes, in which he says: —

If you will turn to page 40 of the last annual report of the Water Board, you will see that during November 191,400,000 gallons of water was run

from Farm pond into Lake Cochituate, and consequently FitzGerald was not stating facts when he said that this amount of water was not run from the 5th of December, for it appears from the month of December that 187,600,000 gallons went into Lake Cochituate: The average for November would very much more than fill the comparatively small basin at Dug Meadow, and I could not have been mistaken in the date, November 28, 1881, when I saw the water passing over the top of the horse-shoe dam into the main lake.

MR. FITZGERALD. — I do not wonder at that letter, and I must say it is due to a clerical error in making up that table. If you consult our original tables, which the clerk consulted, you will find only two tables, one running from Chestnut-Hill reservoir and Lake Cochituate. A note was made beside it: "None of this water was run into Lake Cochituate; it was all run into the waste-weirs." Of course the clerk did not notice that note on the margin, and he put it down upon that table.

MR. SHEPARD. — Do injurious effects follow from the exposure of large shallow surfaces to the sun?

A. Well, as I said before, I believe that in a new basin they do. Now I think one reason why Lake Cochituate tasted badly immediately after raising the lake was because when you flow new land like that you have to produce an equilibrium in nature. The moment you disturb nature you disturb her equilibrium. If that is reckoned I do not think it is injurious; but, to a certain time, I do think it is.

DR. BLAKE. — That is, admitting the question of shallow flowage? When you raised Lake Cochituate five feet above its normal level, and when you drew the others down to this five feet, you had this depth exposed?

A. Undoubtedly. That was traced to those meadows.

Q. And you had the same condition existing in the lake that you have in the basins to-day?

A. No, sir; in the lake we now have more dams. You cannot build dams all around every basin. In Lake Cochituate there were larger areas which were shallow.

MR. GREENOUGH. — You haven't any question but the exposure of shallow water cultivates *algæ*?

A. Yes, sir. My remarks were directed particularly to a lake or storage reservoir which you draw up and down. I do not think it has the slightest effect by drawing it down upon a natural pond. I hope this Commission will not lose sight of that, and that it is a fact that a bad taste is very liable to come to every source of supply in the most unexplainable manner. We have had to shut off the water from Lake Cochituate several times on account of the taste, and to use the other water. That is a matter of record.

STATEMENT OF HENRY M. WIGHTMAN. — *Continued.*

MR. WIGHTMAN. — I wish to say that I am on record in a communication to the City Council, in answer to an order as to the desirability of removing the loam from the basins. I think that where such removal is practicable it is desirable to a certain extent, — that is to say, to the area covered by the ordinary

fluctuations of the surface, — and when I state what I am doing at Basin 4 it will express what I think should be done; it is to stop the loam off from high-water mark to about twelve feet below, wherever it is practicable. Below that point I do not consider it is absolutely necessary, although desirable. I think it is desirable to take off all of the vegetable matter unless you can wait for the process of decay to go on and the water to become pure after that decay. That is, if you can wait two or three years before using the basin, I do not believe it is necessary to take the vegetable matter off. But if you cannot wait two or three years, I think it is a necessity to take off that vegetable matter, if you desire water of unobjectionable quality. I agree with Mr. Fitzgerald, or whoever made the statement, that I do not think it has ever been proved that the loam itself has been the cause of very bad water. Neither do I think that if the water has had a chance to lay upon beds of loam for any length of time and then become pure, that by oxidation of the vegetable impurities the water is injured. After a basin has assumed the character of a natural pond I do not believe it makes any difference.

MR. GREENOUGH. — How much do you think it is advisable to take out of the present basins?

MR. WIGHTMAN. — I do not think out of the deeper portions of the basins there will be any advantage in removing the loam. That is, I mean any advantage gained in quality of water would not compensate for the expense of taking out the loam.

Q. Suppose we take it out of the largest basins, 2 and 3, as you suggest, about what would it cost, and what would be the quantity?

A. I do not think there would be a very large quantity, and I do not think there would be any very great expense. The only thing is, probably by another year it will be all washed into the bottom of the basin, and there would not be any necessity for removing it; but I say that when the basins are formed they have got to assume gradually the condition of natural ponds, and that is about as good as you can get them.

I do not believe it is practicable for a large city to get a supply in the way mentioned by Dr. Durgin. I believe we have got to rely more in the future than in the past upon storage. I believe if an amount of money, as I have indicated, is spent in removing loam, etc., from the basins, and let them assume the condition of natural basins, and the water purify itself from the decay of these vegetable matters, then I think you will get as good water as it is practicable to supply in such large quantities as we require.

MR. SHEPARD. — Taking the expected growth of the city and the amount of water you now use, if you complete the Sudbury supply basins would it be possible to allow them to stand until the basins became natural ponds?

MR. WIGHTMAN. — Well, it would be possible for the City of Boston to be supplied from those basins without building another one for the next twelve years if you could reduce the consumption to sixty gallons per head per day instead of having it ninety-five, as it is now.

Q. Supposing you do not apply any remedy in that direction, and the consumption is the same, and you complete the Sudbury-river supply, will there be supply enough?

A. No, sir; if you commenced to build the basins to-day, and continued the present rate of consumption, you could not build the basins fast enough to supply the city of Boston with water. Only last year we were six hundred million gallons short of the supply we needed. Before we get this last basin done we are up to the capacity of it, -- I mean in a dry year, -- we were up to the capacity of the supply last year; but we got six hundred million gallons from Whitehall pond, which they kindly allowed us to have.

Q. Are you under obligations to keep up the height there?

A. No, sir; but the parties who own the pond had a certain amount of water stored there, and the pond was full. At the time the city was at its shortest supply the parties manufacturing upon the river went to them and made a trade with them to let the water down, and, of course, while coming down the river it had to be stopped by our dams, and we got the supply.

Q. Is Whitehall pond one of the sources?

A. It is practically one of the sources.

Q. Was that dam constructed for manufacturing purposes?

A. Originally it was; but it was rebuilt by the city. There was an old dam there, and the city rebuilt it, to make this storage basin.

Mr. GREENOUGH. — Will you have some estimates made as to the quantity of loam necessary to take out between high and low water mark?

A. For Basins 1 and 2 there are estimates now; but for Basin 3 there are none. I have plans showing the depth of loam and the areas for Basins Nos. 1 and 2, but for Basin No. 3 we have none. A portion of Basin No. 3 was an old swamp, twenty to thirty feet in depth, I suppose.

Q. I do not mean in the swampy part.

A. I was only going on to speak of the accumulation of loam. I suppose there are twenty to thirty feet of loam and muck in the swamp. It is exactly the same as the Lawrence basin was. It would not pay to take out such an accumulation. It is just the same in Farm pond. There are forty feet of mud soundings in Farm pond. There are plenty of places in Lake Cochituate where it would be absurd to talk of taking out such an accumulation as exists.

Mr. SAWYER. — There is a shallow place near the dam on Basin 3.

Mr. WIGHTMAN. — Yes, sir; that is gravelly.

Mr. FITZGERALD. — Would it not be a good idea to say a word about Farm pond? There has been a wrong impression about that pond being filled up with mud.

Mr. WIGHTMAN. — I think it is hardly necessary to state that. I made a statement at the last meeting of the Commission that it was susceptible of proof that people around there for fifty years had known of *algæ* being there.

Adjourned to Thursday, November 9th, at 4 P.M.

FIFTH HEARING.

NOVEMBER 9, 1882.

The Commission met at 4 P.M. Present, Messrs. Caldwell, Greenough, Blake, Shepard.

STATEMENT OF DR. H. P. WALCOTT, *Health Officer of the State Board of Health.*

Dr. BLAKE. — Doctor, the Commission desire to hear your opinion as to the occasion of the present unpleasantness of the Boston water supply, whether it is deleterious to health, and any suggestions you may have for remedying it.

Dr. WALCOTT. — That, of course, includes several topics upon which I am not an authority, and have no right to advise the city of Boston. I ought to say frankly in advance, perhaps, that I do not think the present condition of things could of necessity have been anticipated; that I do not think any of the methods suggested, or which I myself might suggest, would at once improve the condition of the water supply. But the one thing which strikes me not only in connection with this, but with the general subject of water supply in the Commonwealth, is the fact that we know very little about it. The conditions under which we collect water are essentially different from those that prevail in any other country. We have a system of large reservoirs, practically large enough to store water through two, three, or four months of drought. The water supplies of England are of a very different character, and those of the continent are also very different. They have behind them a much more constant supply than we have. I do not know that the problem of ponded waters has been met as we have it here. The experience of every town in Massachusetts, from the small supply of Plymouth up to the large water supply of Boston, has shown that ponding waters in reservoirs, as ordinarily adopted, leads to the development of abnormal vegetable growth in the water that no method suggested offers complete relief from. It is a subject that has not been thoroughly studied; and my own criticism upon the city of Boston in the matter, so far as the past goes, would be, that after having, for a number of years, carried on such an investigation, it has very little to show as to the history of its waters for the last two years.

Prof. Farlow commenced an investigation for the State Board of Health in the matter of vegetable growths, and carried it further than any other investigation of the kind has been carried in this country before, and he reached the opinion that high temperature had a very serious influence in the development of vegetable life. Some investigations at Fresh Pond also show the same thing, — that while the shallow basins about the margin of the pond may be full of clathrocystis, the deeper, and, therefore, cooler portions are free from it.

I saw, this last summer, Mr. William H. Lindley, of Frankfort, who, with his father, and alone, has constructed many of the large water supplies on the continent, and he told me that he and his

father had always advocated covered and deep reservoirs ; that the water-supply reservoirs of large cities were generally so constructed. They felt it necessary to withdraw their reservoirs from the action of light even ; and at the same time the question of depth is regarded as being of almost equal importance as preventing the overheating of the water. I think it is too early, with regard to the Boston water supply, to give any opinion upon the subject that is worth having. I think there are several things we might criticise ; several things in regard to the actual condition of the basins that might be improved. But I do not think any man can say that the mere deepening of the basin will answer the purpose.

Q. From your knowledge of our sources, and our ponds and reservoirs, would any decided improvement follow the excavating, and cleaning and removal, or conducting organic matter from those basins ?

A. It would certainly reduce the amount of those substances represented in analyses by albuminoid ammonia, but that it would prevent the development of many forms of low vegetable life I do not think can be said.

Mr. GREENOUGH. — You said you found nowhere else the ponding of waters for a large supply ?

A. In the sense in which we do it ; that is, a supply that practically is not added to for five or six months.

Q. Do I understand that all the water supplies you know of are taken from running rivers by pumps ?

A. No, not at all. I think I can illustrate by the case of Berlin, which takes its supply of water from the river Spree. They get a very much larger addition to their daily supply than we can get, and it comes very much nearer the condition of running water than ours does. The water in the reservoir is much more frequently renewed than in the Boston reservoirs.

Q. I understand you to say that they take it from the Spree, and it is pumped from the Spree into reservoirs, and that they are able to rely upon a running river, the same as if we took it from the Merrimack and stored it ?

A. Yes, sir.

Q. But they do not rely upon the accumulation of water which is held for some months before being used ?

A. No. I do not remember an instance ; at least I have not seen one.

Q. Did you give any attention while you were over there to the question of filtration ?

A. Yes, sir.

Q. Did you see what is known as the Bischoff system ?

A. Yes, sir. I was so much interested in it that I brought home a Bischoff filter. I saw the London agents of the system. It comes nearer to a perfect system of filtration than anything I know of.

Q. Will you describe it to this Commission ?

A. Prof. Bischoff discovered that water passed through filters of spongy iron was thereby freed from bacterial germs, not by a

process of filtration simply, but by an actual destruction of these organisms. Those experiments have also been repeated here by Prof. Smythe, of Newport, who finds filters of spongy-iron, when properly used, sufficient for the removal of the germs, which are already proved to be the agents of processes of decay, and in many cases of the most fatal contagious and infectious diseases.

Q. I suppose you are familiar with the quantity of surface necessary for filtration in that way?

A. Yes, sir.

Q. Do you recommend it to our consideration, or do you agree that it is outside of possibility?

A. I think it would cost the city of Boston more than it is necessary to spend for a pure-water supply. The expense of the Bischoff filter would be very large for so great a quantity of water. If Bischoff filters were found to be necessary, I should recommend going to Lake Winnipiseogee.

Q. In the city of Berlin I understood they are using about fifteen gallons of water to each person of population?

A. The present method of filtration there is, I believe, through sand. I do not know that the Bischoff filter is used in the water supply of any town.

Q. I think they are using it at Antwerp.

A. I know nothing about the water supply of Antwerp.

Q. The reason I asked you is, that if we could store our ponded water and then filter it as we want it, and keep it in small reservoirs which we could cover and make deep, we could then have absolutely pure water without *algæ* in it. It would be a mere question of cost, and whether it was worth while to do it. If we could reduce consumption to the proper limit, it might be worth considering. Mr. Davis figured on the cost of filtration for the Mystic supply, and if I remember aright it would cost some two or three hundred thousand dollars for ten millions of gallons a day. If by the expenditure of a million dollars we could put in a system of filtration to purify our water supply, I do not think the citizens would hesitate a moment.

A. I do not know.

Q. Going to Lake Winnipiseogee is a question of fifty millions of dollars.

A. And it is a water supply forever.

Q. And full of *algæ*. Lake Winnipiseogee is no freer from *algæ* than any other water supply. It was full of them last summer.

A. Yes. We know that some portions of Lake Winnipiseogee contained *algæ* last summer; but nobody knows what it has contained during the last five years. We want the results of a continuous investigation.

Dr. BLAKE. — Suppose we have a biological examination every day for a year, and it showed the result of a lower temperature than we get in our basins, are you sure that the present changes of the water could be obviated, or do you think the conditions would continue to exist under the conditions described by increasing the depth?

A. I think that increasing the depth would be a protection.

Q. Would it be an absolute protection?

A. Nobody knows.

Q. But have they not constructed reservoirs of 100 feet depth?

A. I do not know of any of that depth. The great reservoir to be constructed on the Mersey for Liverpool has a masonry dam 180 feet high.

Mr. GREENOUGH. — Did you give any attention when you were over there to the subject of consumption of water in the various cities, and how much they were using?

A. Yes, sir. They showed me, at Liverpool, their system, which is an admirable one; but with a certain amount of local pride I assume to say we have as good a one in Cambridge.

Q. It ill becomes me to speak of what you are doing in Cambridge, but we know.

A. I know we have reduced our consumption to 45 gallons a day.

Q. But you have no doubt, as Secretary of the State Board of Health, that the consumption of water could be reduced without disadvantage to health?

A. Yes, sir. I know it is claimed that the waste of water in sewers is an advantage; but I believe it is all nonsense. It is better that the city should use it in a regular manner. I may say that in a recent visit to Indianapolis I found the city supplied with 500 gallons a day to their people per head. They have the Holly system.

Mr. SHEPARD. — Probably it is wasted.

A. I should think likely.

Mr. GREENOUGH. — We have some people at the South End who are using 400 gallons a head?

A. Yes, sir.

Dr. BLAKE. — I want to ask you about this periodical examination of the water: if you think a carefully conducted series of experiments for a period of six months would lead to any practical result upon the subject of purifying our water supply?

A. I do not know that I can answer that in any other way than by saying we are in the dark in this matter; I do not know that I can illustrate my opinion in any other way than by the history of the water supplies I am familiar with. An examination shows the existence of certain forms of animal and vegetable life. In two or three weeks some one form becomes a predominant one. Then, in the course of another month, that organism will disappear entirely, and no trace of it be left. Now, this disappearance may or may not be accompanied by bad taste, yet it is evident that you are dealing with water full of products of decomposition. Now, in the case of the recent trouble with the Boston supply, you get bad taste in the water, and the water supply is then examined; but you are beginning too late. You are dealing with the products of something which has already passed out of existence. It is a question which perplexes every scientific man when he comes to investigate any particular offence, because he knows nothing about the condition of things which preceded it.

A. Do you think a prolonged investigation of that sort will throw light upon the cause of this development, or do you think we know the causes?

A. No, I do not think we know them all.

Q. And that investigation would point out the remedy and prevent a repetition?

A. If the scientific investigation does not show the remedy, then the remedy would be mere guess-work.

Q. But from our present condition you are not prepared to suggest any remedy, under the conditions as they exist to-day?

A. It is my belief that the condition of the water would have been very much better in a deep reservoir with a clean bottom than in a shallow reservoir with a mud bottom. But whether the removal of the muck and making deep basins would destroy these troublesome forms of vegetable life I cannot say.

Q. But if those projects could be carried out to a sufficient extent, and a cooler temperature of water attained, the water would be improved?

A. I know of one artificial basin in the State the history of which in this connection is very instructive, and that is the basin at South Gardner, north-west of Wachusett mountain. Many years ago a man flooded eighty acres for the purpose of forming a reservoir for mill-power; the ground flooded was a swamp. It has now a sandy shore. I remarked this to a man who is familiar with the whole history of the basin, and was told by him that for nearly twenty years the pond "worked" every year, and was offensive. But during that time the gravel and sandy margins had been gradually increasing; the vegetable matter had been undergoing decomposition for twenty years, and the whole thing had been precipitated in the centre of the pond. Now there is no offence in summer; but this result appears to have only come after a number of years of a slow process of destruction.

Q. So, judging from that one case, we can look forward and probably infer that a similar change will take place in our basins?

A. There is no question in my own mind but that the basins will in time clear themselves. Whether the city of Boston can afford to wait that time is another question.

Q. In your opinion would the city be justified in cleaning out those basins and removing all the muck and soil and getting down to the hard, sandy bottom? Would the improvement in the water justify the expense which would be necessarily large?

A. That depends entirely upon the Engineer's figures, and I do not like to give an opinion.

Mr. GREENOUGH. — You are entirely familiar with the action of the city of Cambridge in regard to the Shawshine river?

A. Yes, sir.

Q. Do you expect that they will remove all the muck from the great basin in case they get the river?

A. Do you ask my opinion as a private citizen of Cambridge?

Q. I ask your opinion *amicus curiæ*.

A. If I have any influence with the city of Cambridge I should protest against their constructing a reservoir of less than fifteen feet depth in any portion where the muck remains.

Dr. BLAKE. — If you had any influence with the city of Boston you would enter a similar protest in the preparation of a new basin?

A. I should in the preparation of a new basin, undoubtedly.

Q. In any portion of the basin you would not let the muck remain where the water was less than fifteen feet deep?

A. I should say remove it entirely.

Q. It is worth the cost?

A. I think it is.

Q. The Engineer seems to be of the opinion that it will require only about three years for that water to assume its natural condition, provided the muck is removed from the borders.

A. That is a matter of opinion. I should attach much more weight to the experiment tried for us at South Gardner than I should to the opinion of any engineer.

Dr. BLAKE. — And that experience is, that for twenty years there are this sediment and foul odors from the pond?

A. Yes, sir. Of course this statement was made to me this year in the investigation of another matter. I have no reason to doubt it. The city of Springfield has gained no substantial relief in its water supply. They flooded meadows, and it is not yet a satisfactory supply.

Mr. GREENOUGH. — Are you familiar with our water supply from lake Cochituate?

A. Yes, sir.

Q. You have seen the various impurities put into it from Pegan brook, etc.?

A. Yes, sir.

Q. Are you of the opinion that that pollutes our supply?

A. Very seriously.

Q. Where is it taken, into the conduit?

A. Yes, sir.

Q. But it cannot be shown by chemical analysis?

A. No, unfortunately; that is the objection I have to a chemical analysis. That is the reason I believe in a much more complete study of waters. I believe we have got to the end of purely chemical analyses.

Q. You are familiar with the laws in relation to enforcing the purity of water supplies?

A. Yes, sir.

Q. And you probably know that they do not work satisfactorily?

A. I know they have not given the satisfaction which the public expected of them.

Q. The law is not as strong, in your judgment, as it ought to be, is it?

A. The law as it stands upon the statute books seems to be sufficiently strong.

Q. But you know how the thing works; that when the city of Boston — in the first place, we are called upon to show that the water is polluted when it enters the conduit, which you say chemical analysis will not show, although you know it is polluted, and

in case of a decision of the State Board of Health there is a right to appeal to a jury from the next town. That is not a satisfactory condition, in which it is desired to be, to purify the water supply?

A. No, the working of the law is not satisfactory; but I do not say that the law is not satisfactory.

Q. But you have occasion to see, in your position, that the law cannot be properly enforced?

A. I know it has not been properly enforced.

Q. I am very glad to hear you say that chemical analysis is not satisfactory.

A. It is not to me. I do not know any more striking instance of it than that shown by some of the experiments of Pasteur, who has done the greatest work upon these low forms of life; that is, that he could destroy a sterilized solution of animal matter, in which there is absolutely no germ or living thing, by adding a fluid, which, by no chemical test, could be shown to contain anything but pure water. Now, it is not necessary that anything which makes trouble should be one of these germs; but what is true of one of a class may be true of the rest.

Q. You do not think the pollution which comes from Pegan brook can be got out by oxidation, or anything in that line?

A. I think the chances are against it. I think the outbreak of typhoid fever among people along the course of the brook, and draining into it, would be a serious menace to the city of Boston.

Q. Are you familiar with the laws which govern the English Board in this matter?

A. Yes, I think I am.

Q. Are they not all tending to the result that every man must purify his own sewage — every town and every manufactory?

A. Theoretically, yes, but practically, with regard to certain streams, even English law has allowed vested rights to become so powerful there that they cannot remove them. For instance, the city of Bradford purifies its sewage at a vast expense, and empties it into a stream apparently as foul as its sewage. The city does that, however, under an injunction obtained by the owners of some estates below Bradford on the river. But very little of that action has been taken under the Pollution Act.

Q. What are they going to do in the city of Bradford?

A. Bradford keeps right on turning pure water into the foul stream.

Q. It is so in Manchester?

A. Yes, sir.

Q. That is to say, every city can be compelled to purify its sewage before it empties the water into the stream?

A. Yes, sir. That is so in Coventry, which empties its sewage into the river Sherbourne. I mean that they are not yet in a position to enforce the Rivers Pollution Act.

Q. On account of the vested rights which prevent it?

A. My impression is, that the present laws are not regarded as sufficient, and that most of the action already taken has been by the process of the common law.

Dr. BLAKE. — You consider sewage in any quantity as dangerous to a water supply for a large town?

A. It is enough to condemn the water supply.

Mr. GREENOUGH. — What would you recommend us to do at Pegan brook?

A. I should go again to the courts for protection.

Q. You know very well that the city Water Board has not been able to get anything from the town of Natick, although they went before your Board?

A. There is something better. I should go for a metropolitan drainage system.

Q. The city of Boston did go for it, if you will allow me to correct you.

A. It did not appear so to those who were interested in it.

Q. The city of Boston was represented by Mr. Caldwell, Mr. Shepard, and myself, and favored it.

A. But Mr. Bailey turned around at the last moment and opposed it.

Mr. GREENOUGH. — That matter was referred to the Committee on Water, and was by them referred to Alderman Caldwell and myself, and we went to the Committee on Health at the State House, and the plan was violently opposed by the smaller towns.

Dr. WALCOTT. — Yes, sir.

Mr. GREENOUGH. — I never heard that Mr. Bailey retracted his approval. If he did I never heard of it.

A. We certainly did have his assistance, in the first place; but he made objection finally to the cost being raised by a tax upon general valuation instead of population.

Q. In raising the \$30,000?

A. Yes. I do not know that that would have made any difference. But I do not see any relief for the water supply for this whole territory except this metropolitan drainage scheme.

Dr. BLAKE. — And that would remedy only that one evil?

A. Yes, sir. It would remedy the evil from Natick. I think there is something to be said for Natick.

Q. Would it relieve the trouble with Sherburne and the Women's prison?

A. Yes, sir, I think it would. The city of Boston has an evil before it in the Women's prison which is only a trifle compared with Natick.

Mr. GREENOUGH. — You do not think the emptying of it into the ground relieves it?

A. I do not. I do not think the filtration through the earth is going to remove the thing that produces typhoid fever.

Q. Suppose we should apply the Bischoff system to Pegan brook?

A. If applied to Pegan brook it might be made a success.

Q. It would pay for the amount of money required?

A. I do not know whether it would pay, I think it would be a relief.

Dr. BLAKE. — It would be a relief in a measure. But unless the same system was applied to Cochituate village, and South

Framingham, and the Women's prison, the relief you would get would be only partial.

A. You could apply it to all.

Mr. GREENOUGH. — There is very little that comes from South Framingham.

Dr. BLAKE. — Do I understand that there is no system of sewerage there?

Dr. WALCOTT. — Any growth about South Framingham means the pollution of Farm pond. I do not know how you are going to prevent Framingham from using that small brook.

Mr. GREENOUGH. — Half the time there is nothing to speak of coming out of that brook.

A. No, but I am assuming that there will be, from the increase of population.

Q. That can be obviated by putting a conduit around Farm pond?

A. Yes, sir. But these are all makeshifts. They must have a complete system of drainage.

Mr. GREENOUGH. — I think that is so, and if the city of Boston can assure this drainage by the expenditure of four or five millions of dollars, I think it better do it.

Dr. BLAKE. — The expenditure of four or five millions of dollars would ensure the drainage of this source of pollution. In your opinion, if the city of Boston would expend that amount of money in that way, would it have a marked effect upon the character of the water?

Dr. WALCOTT. — In my opinion it would.

Q. And nothing less than that would secure marked relief?

A. Well, I do not know of anything.

Q. I do not see anything myself. If you have a high temperature in consequence of shallow flowage and shallow basins, we know, or at least we infer, that the high temperature of water would give rise to the development of these water plants, which by their decay affect the water, if they do not render it deleterious to health; and I do not see any other way of solving the problem except to remove those conditions which are favorable to such growths. I suppose it would not be feasible for our city to cover the storage-basins, or roof them over?

A. It does not seem to me at all possible.

Q. Could we gain any material supply by pumping from artesian wells, or by any other system of drawing water from beneath the surface of the earth?

A. The trials that have been made in this State, with that end in view, have not been successful.

Mr. GREENOUGH. — They have good water at Watertown?

A. There is a good deal of question about it. The last analyses showed that the water had deteriorated; but the present condition I do not know.

Q. I know they bored about eight hundred feet at Lowell, and got no water.

A. I do not know enough about the geological formations about Boston to speak with authority.

Dr. BLAKE. — Do, far as you know, all cities and towns depending, as we do, upon storage-basins, have the same trouble that Boston is now laboring under, from the want of preparation of the basins?

A. Yes, sir, I do not know one that has escaped. Holyoke, which has a supply from up above the city, remote from dangers of sewage contamination, has trouble even in the winter months.

Q. So that Holliston, Milford, and Arlington, and all the other places, have all practically prepared their basins in the same way that Boston has, and all been troubled in the same way that Boston has been?

A. As I say, I do not know of any basins that have escaped.

Mr. GREENOUGH. — You are familiar with the Sudbury river?

A. Yes, sir.

Q. You consider it a good source of supply?

A. I never felt that it was as good as the Charles river, but perhaps it is, on the whole, the best available.

Q. Dr. Durgin testified here last week that he thought the small amount of coloring matter held in that water in suspension had a deleterious effect upon the public health, although he had no special case which he could point to. Have you an opinion upon that?

A. I do not think there is any evidence — at least we have found none — that a slight development of clathrocystis in the water has injured people who used it. I think there is evidence, however, that it is an indirect injury, from the fact that a great many people who ought to use water are deterred from doing so.

Dr. BLAKE. — I think that Dr. Durgin put his statement in answer to a question of mine, that people with susceptible stomachs and delicate sensibilities might experience nausea and troubles of that sort, and irritation of the stomach and bowels, from drinking the water.

Dr. WALCOTT. — I do not think any of us want a water supply that doesn't taste well. I do not think it needs any argument to prove that.

Mr. GREENOUGH. — The water is very good in Boston to-day?

A. I do not drink it.

Mr. GREENOUGH. — It has materially changed within two weeks.

Dr. BLAKE. — It is much diluted.

Mr. SHEPARD. — But all the evils of sewage may be there.

Mr. GREENOUGH. — It has not the brown color it had two weeks ago.

Mr. SHEPARD. — But there is a good deal of difference. The water I draw at my house is different from that which I draw at my office.

Mr. GREENOUGH. — You may be on the high service.

Dr. BLAKE. — I have experienced no difficulty the past summer. I must say I have no reason to complain of the water if it is largely diluted with ice and the temperature is lower. I think that absolutely pure water is as flat a tasting fluid as anything you want to drink. Well, Dr. Walcott, to sum up, you would recommend a careful, protracted, scientific investigation of our water, and the

conditions it is exposed to, with the hope that the information derived therefrom would enable us to devise some measure for remedying the evil?

Dr. WALCOTT. — Yes, sir; I think it is fair to assume that.

Q. And that measures taken to ensure a lower temperature of the water would also be beneficial, in the deepening and cleaning of the basins?

A. Yes, sir.

Q. You are not prepared to say that allowing the water to stand in the basins, prepared as ours have been, for three years, would be sufficiently long to allow the water to purify itself?

A. I do not believe it will be purified in three more years.

Q. Not in six years?

A. No, sir.

Q. Then you see no reason why the citizens of Boston, unless active measures are taken, cannot look forward to more troubles?

A. I do not see why the condition of things for the last year should not be repeated.

Q. You know no method by which these water-plants can be arrested or destroyed, under present conditions?

A. No, sir.

Q. No chemical or other process?

A. That is, none applicable to such large masses of water.

Mr. GREENOUGH. — By whom would you recommend that such an examination as you suggest should be made, by a biologist or chemist?

A. By both. The State Board of Health, Lunacy, and Charity, at my suggestion, made an appropriation in the beginning of the year for such an investigation into the conditions of various water supplies of the State. A person, competent to do the work, could not be secured, and the examination has not been made. I cannot name a biologist for this work. I have also had some conversation upon this subject with the Water Commissioners of Boston.

Q. You did not make the proposition to the Boston Water Board?

A. No. I had talked it over with them, and I understood that they received it favorably. But it never was completed, because I never found the man to do the work.

Q. You have no one whom you would propose now?

A. No, I have not.

Q. Is there not one man, qualified to do that work, in the city?

A. No one man.

Q. Several men could do it together?

A. Yes, sir.

Dr. BLAKE. — The work could be done in Boston?

A. Yes, sir. Of course the appropriation I control is a limited one.

Q. Then it is simply a question of money?

A. It is a question of money.

Q. Have you any idea of the expense?

A. I am not now prepared to name a sum.

Mr. GREENOUGH. — The water should be chemically analyzed, and also examined by a biologist?

A. Yes, sir; and, by keeping the two distinct, it is possible that in a year or two we might bring the two together in some useful way.

Q. It would cost very much?

A. For a great many years the work that Prof. Nichols did do was almost the only scientific work that had been done in the study of waters, and it has been almost constantly referred to throughout the country.

Dr. BLAKE. — Have you anything to add to what you have said in the way of general advice or suggestions to this Commission?

A. No; I think I have already taken it upon myself to give you a great deal of advice.

The Clerk read the following: —

To the Chairman of the Commission appointed to investigate the character of the Water Supply of the City of Boston: —

DEAR SIR, — At a meeting of that division of the Suffolk District Branch of the Massachusetts Medical Society which is devoted to the subject of Clinical Medicine, Pathology, and Hygiene, held in this city last evening, the accompanying votes were unanimously carried, and the Secretary was directed to present the same to the chairman of the Commission as the expression of the views of the Society.

— Very respectfully,

ALBERT N. BLODGETT, M.D.,

Secretary.

ACTION OF THE CLINICAL SECTION OF THE SUFFOLK
DISTRICT BRANCH OF THE MASSACHUSETTS
MEDICAL SOCIETY, NOVEMBER 8, 1882.

Voted, That the members of the Clinical Section of the Suffolk District Branch of the Massachusetts Medical Society convey, through their Secretary, to the Water Commission, lately appointed by the Mayor of Boston, their appreciation of the extreme importance to the inhabitants of the city of the questions which the Commission was appointed to investigate.

Voted, That, as practising physicians of the city of Boston, we express to the Commission the earnest hope that it will not adjourn without a thorough and careful consideration of the whole question of the city's water supply, or without making some suggestions for future action in the premises which may offer a reasonable hope of providing pure water, and of protecting the citizens against a recurrence of the great annoyances of the past.

The communications were received and placed upon file.

Adjourned to Thursday, November 15th, at 4 P.M.

SIXTH HEARING.

NOVEMBER 15, 1882.

The Commission met at 4 P. M. All present. The clerk read the following: —

80 NEWBURY ST., NOV. 15.

DEAR SIR: — In case I am prevented from coming to the hearing this afternoon, I would say that in my opinion, —

1. The Sudbury-river water contains nearly always more organic matter than is proper in drinking water.

2. It is impossible to supply first-rate drinking-water to the city at the rate of 100 gallons a day to each individual, so that means are required to check the enormous waste.

3. As the Sudbury-river basins are constructed, they supply to the city more or less diluted bog-water, — an evil to be corrected by consulting the engineers.

Very truly yours,

CHAS. F. FOLSOM.

W. H. LEE, Esq.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY,
BOSTON, 14th Nov., 1882.

Mr. W. H. Lee, Clerk of Committees: —

DEAR SIR, — Your invitation to attend a hearing of the Water Commission on Wednesday has been duly received; but the present condition of my health prevents my acceptance of the same.

Yours truly,

WM. RIPLEY NICHOLS.

To the Commission appointed to investigate the Water Supply of Boston: —

At a meeting of the Boston Society for Medical Observation, Nov. 6, 1882, the following resolution was passed by a unanimous vote: —

The members of the Boston Society for Medical Observation, believing that the water supplied the inhabitants of the city of Boston falls far short of what a potable water should be, and that its condition ought to excite apprehension, as it has already excited disgust, desire to express their gratification at the appointment of a commission to investigate the subject, and to express to the gentlemen of the commission the deep interest with which their deliberations are watched by physicians. They feel confident that in their consideration of the subject, the Commission will recognize the gravity of the evil to be remedied, and hope that, with the assistance of such experts as they may consult, some remedy may be found for the unfortunate condition of affairs which has led to their appointment.

It was unanimously voted that the secretary be directed to transmit this resolution to the Commission.

C. M. JONES, M.D.,

Secretary Boston Society for Medical Observation.

The several communications were ordered printed in the proceedings of the Commission.

None of the gentlemen who had been invited being able to attend to-day, the Commission, after the transaction of some routine business, adjourned to Friday, Nov. 17th, at 4 P.M.

SEVENTH HEARING.

NOVEMBER 17, 1882.

The Commission met at 4 P.M. - All present.

STATEMENT OF DR. CHARLES F. FOLSOM, FORMERLY SECRETARY OF
THE STATE BOARD OF HEALTH.

Dr. BLAKE. — Doctor, you were for many years secretary of the State Board of Health, and in the line of your duty became familiar with the water supplies for cities and towns. I want your opinion as to the best source, provided the city or town has its choice, whether lake or river?

Dr. FOLSOM. — The best source unquestionably is a lake with a gravelly bottom, supplied by springs.

Q. Are there opportunities for obtaining water from that source in Massachusetts?

A. Very few in this part of the State.

Q. At the time Boston took the Sudbury-river supply, was it, in your opinion, the best available source?

Q. I was not entirely sure whether it was better than the Shawshine. I did not go into that matter carefully. My impression is the Shawshine might be a little better.

Q. Would the Shawshine yield as much water?

A. My impression is it would; but I am not sure about that.

Q. Why was your preference for the Shawshine?

A. I thought it would be more likely to be kept entirely free from the wash from the small villages and towns; but the difference is not so very great in that respect.

Q. Then, under our present condition, storage-basins are a necessity, using the quantity of water *per capita* we do?

A. Yes, sir, unless you are going to Lake Winnipiseogee, which is, perhaps, out of the question.

Q. In the preparation of such basins, what course would you recommend as the best in order to yield us comparatively pure water?

A. The storage-basins I have examined very carefully are those of England. Their climate is rather cooler than ours, and it seems to me we ought to use at least as much care as they do in the preparation of their basins. The sides are usually pretty nearly perpendicular, a good many of them of masonry. If I remember, there is no place in any of them where the water is less than eight to ten feet deep. These are the storage-basins chiefly in London and on the East River Thames. That is the rule which generally obtains in England.

Mr. GREENOUGH. — Are the sides all masonry?

A. Most of them.

Dr. BLAKE. — Are they careful, in the preparation of their basins, to remove the loam and vegetable matter?

A. Yes, sir; and the bottoms, in every case, if I remember accurately, were covered with gravel.

Q. Have they complaints of the quality of water?

A. Yes, sir.

Q. Of what nature?

A. The Lee river and the Thames both contain enormous amounts of vegetable organisms; I would say rather more than in any of our rivers. The amount is so excessive that they have used very great care in getting rid of it. The water supply of London is the subject of inquiry at the present time. They have the same difficulty, I think, that we have, only to a less extent, because their basins have been more carefully constructed. The greatest difficulty in London, however, it should be said, is now rather as to quantity than quality. They have to supply something like a hundred and twenty millions of gallons a day, which is, of course, rather a difficult thing to do.

Q. Do they complain of the taste and color, and smell, of the water when heated?

A. They very rarely have the disagreeable taste and color we have, — almost never. The chief objection to it is the objection that obtains to all river-water, that it is flat and tasteless. Now, as I say, the complaint is in regard to quantity.

Q. In the storage-basins do they have water-plants grow? Do they have *algæ* to the same extent that we have in our shallow basins?

A. To the same extent, but not of the same kind. There is a plant which grows in the Thames and East river, one of the fresh-water *algæ*, which does not apparently give any taste to the water, and does not color it. It creates more mechanical trouble in the pipes, as to its removal, than ours does; but it does not give off the same offensive odor in decaying that ours does, and it does not impart to the water a disagreeable taste.

Q. In what respect does it render the water disagreeable?

A. It is chiefly a mechanical difficulty. Unless removed it fills up the pipes. It is in enormous quantities. I have seen a collection in less than a month, when I was in London, and went over the works with Mr. Graves, who has been the chief engineer of their works for many years, — deposits which must have been more than a foot thick, — green, — less than a month's collection. The workmen about there carted it off and used it for manure in their gardens.

Q. When that plant decays and dissolves, to a certain extent, does it not give a bad taste to the water?

A. It would, if it were not removed by filtration.

Q. By what process of filtration?

A. By passing downward through a layer of sand and then below that gravel, and below that are stones, which are gradually increased until they are as big as your fist.

Q. Are the laws regulating the pollution of potable waters more stringently enforced in England than in this country?

A. The laws are very stringent, but they are not in all cases enforced.

Q. They have the same difficulty with vested rights that we have?

A. They have great difficulty in enforcing the laws, very much more than we have, because the process is not so summary. It takes such a long time to get a matter before the courts and through the courts. A great many cases have been in the Chancery courts for many years.

Q. Should you say they are freer from sources of pollution of drinking-water in England than in this country — in the State of Massachusetts?

A. At the present time there is more filth from various sources that goes into the Thames river than in our water supplies. It is a highly cultivated area, and, of course, more thickly settled.

Q. Is the Thames water used for drinking, except a short distance below its source?

A. Yes, sir; a very large part of the London supply is from the Thames.

Q. Taken how many miles from London?

A. I cannot be quite sure. Some of the supplies come from, at least, below the town of Windsor, which is not far up, — perhaps fifteen to twenty miles.

Q. From your knowledge of engineers, and the care in the preparation of storage-basins, do they pay much more attention to those matters in and around London, and throughout England, than we do in this country, or not?

A. Yes; I think they unquestionably do.

Q. If you were consulted in the preparation of storage-basins, for a water supply for the City of Boston, what measures would you recommend to render our water supply as pure as possible?

A. Which, the present supply?

Q. Yes, sir.

A. I think some measures have got to be taken to reduce the enormous waste. That is without question, because the city is growing, and it is absolutely impossible for it to continue supplying the quantity of water which it is supplying now, for, of course, a great quantity of that is wasted. Beyond that, it seems to me the quality of the water from the basins should be improved, and I see no way of doing that but by deepening them and making their bottoms of gravel and their sides perpendicular, or nearly so, and having the storage-basins at such a depth that there would be no part of the water less than eight feet deep. I do not think it should be less than that. In our climate we should have probably some little difficulty with that depth.

Q. You would get rid entirely of the shallow flowages?

A. Yes, sir; I think it is quite necessary from two points of view. In the first place you cannot help the shallow portions of the reservoirs from being virtually swamps with a great deal of vegetation growing, and a great deal of heating matter in them. When the water is shallow the temperature would be very high in summer, and that, of course, encourages the growth of the forms of vegetation which we want to get rid of if possible.

Q. You are quite sure that the temperature has a great deal to do with the growth of *algæ*?

A. There is no doubt it has a great deal to do with the growth

of those forms which are the most trouble to us, — the forms that we have had so much to do with in Horn pond, in Woburn, and in the Sudbury-river basins.

Q. In large natural ponds they have had a comparatively small amount of these plants?

A. In the natural ponds, supplied chiefly from springs, there has been none of this vegetable growth.

Q. Do you recall many cases?

A. Lake Wenham.

Q. That has an average depth of how many feet?

A. I cannot tell you. It is supplied chiefly from springs. It has a very gravelly bottom; there is very little flow from the surface. I do not remember the temperature, though I noted it one summer; it was very much cooler than in others. There are two little ponds at Concord, one called Sandy pond, and the other Walden, and I think a number in Plymouth county fed by springs. I am familiar with one or two in Berkshire county that supply the city of Pittsfield.

Q. Do you think sewage in any amount is liable to contaminate the water so that it will become deleterious to people using the water, even though chemical tests do not reveal the sewage?

A. Yes, sir; I think it is dangerous.

Q. So that if you were in a position to entirely shut it out, and prevent its entrance into the water, you would do so?

A. I certainly should.

Q. Do you know of any town or city supplied by shallow basins that has been free from complaint of its water supply?

A. No, they have all had it; Malden, Springfield, Melrose, and all the other towns. It is inevitable.

Q. Do you think that in artificial basins with a shallow flowage, the water would purify itself in any particular time?

A. I doubt if it will. Of course the bottoms will improve; but in those parts where the flowage is comparatively shallow, I do not think we may look for any improvement; if anything it will get worse.

Q. So that any fixed time, three or six years, with basins of shallow flowage, will not render the water pure through the process of purification by exposure?

A. No, I do not think it would. The deeper parts of the pond will be very much improved indeed; the peaty matter will be washed away, but we have got to drink it. In the shallow parts I should not expect to find any improvement at all. I think that by examining the storage-basins now, one would find that that process is taking place to a great extent in the deep water, and is not taking place in the shallow water. In a great many places where the water is deep the turf and peat are all gone.

Q. I suppose that water holding a large amount of vegetable matter in solution may become dangerous to health?

A. I think it is generally accepted, to a certain extent, as injurious to health, and liable to create danger.

Q. Familiar as you are with our source of supply, and our system of storing water, your recommendation would be to cleanse and deepen the basins and prevent the entrance of sewage?

A. I should say that.

Q. Is there any other suggestion you could make to the Commission, in a general way?

A. Only with regard to checking the enormous waste. A city of any size cannot supply a hundred gallons a day to each individual of water which is thoroughly fit to drink.

Q. And Boston cannot with its present source of supply?

A. No, not without an enormous expense. Of course the population increases, and keeps using more and more water.

Q. Do you see any possible benefit to result to the citizens of Boston from the adoption of any method of filtering the water before admitting it to the city?

A. I doubt very much whether it would be of sufficient value to pay for the undertaking. Of course it is very expensive in our climate. That would be a matter of experiment, or rather you might say of experience. It is impossible to predict absolutely; but I should not expect anything of value from it proportionate to the expense.

Mr. GREENOUGH. — Whether you would look upon it as practicable? — You are familiar with Pegan Brook and the lay of the land about there?

A. Yes, sir.

Q. Would it, in your judgment, be practicable to apply some filtering system, similar to the Bischoff system, by which to purify the water with iron?

A. Oh, yes. There is something like a hundred of those processes which have been tried. I do not think any of them are fairly successful. The iron process is very expensive. It is certainly much more expensive than sewerage and disposing of the matter. Even if it was carried down to where no one could make complaint, it would be cheaper than the Bischoff process. That process is very expensive. It has never been used in towns of any size. The only places where it has been used are a few factories, where the matter was concentrated.

Dr. BLAKE. — Would you expect any benefit to be derived from daily scientific examinations of the water?

A. It seems to me we have got nearly all that now. We should get a good many matters of scientific interest unquestionably. If it could be carried out a sufficient length of time, we might very likely get at some means of destroying this organic matter which is giving us some trouble. If all these improvements were made in the basin I do not suppose we should, necessarily, get rid of that particular form of vegetation which is most offensive to taste and smell; and, beyond that, we have got to find out how to get rid of that matter. Very likely investigations carried on in that direction, for certain intervals, for a long time, might be of value.

Q. We should be able to learn the natural history of the growth of this vegetation, and, perhaps, be able to devise measures to prevent its growth in certain basins?

A. Yes, sir.

Q. Will freeing the basins of vegetation and deepening the water tend to retard the development of those plants?

A. It unquestionably would of the plants which have given us the most trouble in the Sudbury-river basins, and in Horn pond, and quite a number of other ponds not used for water supply; but I do not think we know enough about the others to answer that question definitely. I remember once that in the Chestnut-Hill reservoir basins it was seen one year, and was not in any of these shallow basins.

Q. You say those plants are absent from ponds where the water is at its greatest depth and the temperature cooler?

A. Yes, sir.

Q. By adopting those measures, would we not prevent them from growing?

A. I think you would prevent the clathrocystis, which you see sometimes in the water; but the other does not last more than ten days or a week at the best, and it is in a very minute quantity. I should be very glad if I could say that would be the end of it; but it does not seem to me that would be warranted in the statement.

Q. Is it not a fact that ponds fed by springs from the bottom are clearer and have a lower temperature?

A. Yes, sir, very much less.

Q. So, taking all the measures we have spoken of, we could not hardly obtain as favorable conditions?

A. No, sir. You would get conditions more favorable than in some natural ponds, like those supplied from surface-water and flowage from fields; but you could not get the conditions obtainable in Lake Wenham, for instance.

Q. Do you think water purifies itself from sewage by running a certain number of miles, and standing a certain time?

A. Yes, to a certain extent.

Q. In what way is the purification brought about, by oxidation, chemically, or combination of all processes?

A. By oxidation, to a certain extent; but fish eat a great deal of sewage.

Q. When you get the sewage diluted, is there any way you can say that water purifies itself and is free from sewage?

A. No, sir.

Q. There is no way?

A. No, sir.

Mr. GREENOUGH. — You are familiar with the laws in this State affecting the pollution of water supplies?

A. Yes, sir.

Q. Do you look upon them as being in a satisfactory condition?

A. No, sir; not at all. We have simply compromises between different individuals in the Legislature, and I think there is very little satisfaction in them.

Q. You would strongly advocate the laws being more stringent?

A. It seems to me it is quite important. We shall have to come to it some time or other.

Q. The tendency of all modern legislation is, to protect the source of supply for all drinking-water?

A. Yes, sir. They have gone much farther in Germany than they have in England; and, of course, farther in England than we have here.

Dr. BLAKE. — Did you learn anything from Sir Frederick Bramwell in regard to water supply in London?

A. No more than I knew in regard to it. They supply about thirty gallons to each individual. London is growing rapidly, and they find it difficult to get water enough.

Q. Do they place restrictive measures upon consumers, to prevent waste?

A. The London water supplies are all private corporations, and, of course, they have to restrict consumers, just as the gas companies do.

Mr. BRADLEE. — They supply them differently from what we do. They supply the cisterns.

Dr. BLAKE. — And they fill the cisterns.

Mr. GREENOUGH. — And they use filters.

Dr. FOLSOM. — Liverpool is the only city that has meters.

Mr. GREENOUGH. — That is the Deacon meter, and it is not upon the houses. You may have noticed that we have been trying to introduce them here?

A. Yes, sir. I went through the matter with Mr. Deacon, when he was trying to introduce them in Liverpool.

Q. You would consider Lake Cochituate a good source of supply?

A. It certainly was until the dam was built. Of course that flooded a large area of meadow land.

Q. Do you consider the purity of Lake Cochituate is seriously affected by what goes into it?

A. I think the sewage of Natick is a dangerous element, and you cannot detect it.

Q. You would consider it worth a large amount of money to the city of Boston to have it taken out?

A. I should; yes.

Q. The Sudbury-river water itself is good water, after being stored?

A. I think it is probably as good water as one could usually expect to get from rivers.

Q. Are you familiar with the water supplies of any of the other large cities of this country?

A. I have been, with a good many of them.

Q. Do they exercise any more care in the preparation of their basins than we have in ours?

A. The basins of some of the cities were built for storage, — an entirely different purpose. In St. Louis they are built of light clay and sandy bottom. In Louisville, Ky., they were built for storing water also, and, of course, were built very carefully.

Q. But those were only built for the purpose of holding a few days' supply?

A. Yes. I think the difficulties applying to our system would apply to all. It certainly would in New York. The Philadelphia water is a good deal worse than ours.

Q. Would it be your opinion that we had got a tolerably satisfactory water supply if a little more care was applied to the preparation of it?

A. I should say a good deal more care. It is a very large undertaking to construct basins as they should be constructed.

Q. Would you consider it worth the expense now, to which we would have to go, to remove the loam from the basins?

A. I should think so, for drinking-water.

Q. As a matter of fact I understand that those impurities in the basins appear at a later date now, than they did in the previous year?

A. Yes, sir, it is a fact.

Q. So we have reason to believe that, in a few years, they will disappear?

A. I do not think that inference is a fair one. It has been the same with regard to other ponds in which there has been no change whatever in the condition of the pond.

Q. But if we could not get along without shallow flowage in the basins we have, you would rather recommend us to abandon that portion of the basins in which the flowage is shallow and dam them off?

A. Decidedly.

Q. In both the lake and in the basins?

A. Yes, sir, I should. I do not mean to be understood as saying that I think it will render the water perfectly pure and free from any difficulties whatever.

Q. Certainly not. But there will be less growth of *algæ*?

A. Yes, sir; and there will be almost none of this solution of peaty substance in the water, which is a difficulty that applies the whole year round.

Q. You mean the discoloration?

A. Discoloration is the result of it. There is a large amount of vegetable matter dissolved in it which is the cause of discoloration, and that exists the whole year round.

Q. I understand the water is more peaty colored when it comes into the basin than when it leaves it?

A. Undoubtedly.

Q. And, therefore, it does not necessarily take up the coloring matter from the basin?

A. The coloring is not necessarily an index of the presence of organic matter. Some dark waters contain less ammonia than lighter waters. The darker and lighter colors may hold the same degree of decomposition.

Q. You have noticed the difference in the water in Boston to-day from what it was a month ago?

A. The water in my house to-day happens to be more highly colored than it was yesterday. I have noticed it for some time past. Usually I have had less trouble than some of my neighbors.

Q. But the fact that the water is whiter would not show that it is purer?

A. It would not necessarily. It might in this case.

Q. You had, I know, some talk with Sir Frederick Bramwell,

because you brought him into my office. He gave me an account of this system of filtration by oxide of iron.

A. Of sewage?

Q. No, of drinking-water.

A. I thought you were speaking of sewage.

Q. I was, in regard to Pegan brook.

A. Well, Bischoff's process is usually applied in individual houses. Very likely the city of Antwerp is using it, but it is something quite new to me. Mr. Bischoff's system for filtering drinking-water was introduced quite a number of years ago in London, and it was used in some other cities. Chemists do not speak as favorably of it now as they did in the beginning; but still it is undoubtedly good enough for most purposes. I did not know that any city was doing it upon a large scale.

Q. I think there are several at present.

A. Very likely.

Q. The water, as it comes from Pegan brook, contains a considerable quantity of sewage?

A. Yes, sir.

Q. I did not know but it might be possible to so filter that brook that it might be allowed to run into the lake?

A. It certainly would not be satisfactory filtration by Bischoff's system of spongy iron, because it does not completely oxidize.

Q. You think nothing but chemical treatment would affect it? Would it be possible to chemically treat that water so as to render it harmless when it goes into the lake?

A. I do not think there is any method, without using a disinfectant, which must be so strong as to injure the water. Undoubtedly, you can filter the water by the spongy-iron process of Bischoff, so as to sufficiently oxidize all the vegetable matter, such as we get from peat and turf, etc. Whether it can be done mechanically or not, I do not know. I never investigated that question. It certainly would be sufficient so far as purifying the water from vegetable matter.

Q. Is there any specific alteration in the law which we now have in Massachusetts, for the protection of the water supply, that you would recommend?

A. I went over the matter pretty carefully two or three years ago, and there was a law published in the eighth or ninth report of the State Board of Health, which I thought would be sufficient at that time, but which did not pass. I cannot go over all the points here now, because I would have to refresh my memory about it; but it seems to me the passage of sewage into water supplies used for drinking ought to be absolutely prohibited.

Q. What would you expect the town of Natick to do, — purify their sewage, or seek some other outlet for it?

A. I think they ought to be required to seek some other outlet for it.

Q. Take the rubber factory now being erected on the borders of Lake Cochituate; what would you expect the law to compel them to do?

A. I am not familiar with the process, but I think, unquestion-

ably, they should be enjoined from allowing any filth to go into the lake.

Q. You know, as a matter of fact, that the present law will not protect the water supplies?

A. No, it will not. I do not think it was meant to.

Q. These basins which you have seen in London, which are gravelly bottoms, and masonry on the sides, are none of them to be compared in size to our basins?

A. Those in the immediate vicinity of London are not so large. But there are two sets of basins on the East river, one very high up, where the water is stored about three days — in fact, there are three sets — another set quite near the city, which are filtering-basins. The basins away up are not built so carefully; but still they are so constructed as to prevent the water from being shallow. That method has been recommended very urgently in England for the last four or five years by the leading engineers for the smaller towns. In all cases that is one of the points they insist upon.

Mr. BRADLEE. — How is it done in that case?

A. I forget what they call the method.

Q. Rip-rapping?

A. Yes, rip-rapping.

Q. Do you know what slope that is put at?

A. No, I do not. I should suppose that would be the cheapest way of doing it.

Mr. GREENOUGH. — You did not see any basin treated that way which is a quarter of the size of our basins, did you?

A. I will not be sure about that. I think some of those London basins must be more than a quarter of the size of ours. There are many of them.

Q. They pump the water from the river, do they not?

A. Yes, sir.

Q. So they do not find it necessary to store the water as long as we do?

A. Not so long as we do. They pump fifteen-sixteenths of their water from the rivers.

Q. And pump it daily?

A. Yes, sir.

Q. There are six water companies in London?

A. I do not remember the number.

Q. And no one company would furnish anything like the quantity of water which we have to furnish the city of Boston every day?

A. Our present supply is thirty-six millions of gallons; and there is no London company which furnishes such an amount as that.

Q. Probably they have no basin as large as ours?

A. I should say no, not as large, but I should say a quarter as large. I did not measure them, and it is difficult to estimate their size.

Q. It is a very different thing when you are treating a basin of thirty acres from treating one of fifty?

A. Unquestionably.

Dr. BLAKE. — Do they cover their basins, in England, and roof them over?

A. They do, some of them, but more upon the Continent than in England.

Q. Is it pretty general on the Continent?

A. The Germans are using it a great deal.

Q. What benefit do they expect to derive from it?

A. Keeping down the daily temperature. In the lower part of Germany they have as hot weather as we do. In England they seldom have as high temperature as we do.

Q. Have they come to this improved system of storing water on account of the difficulties in the past from shallow flowage, etc.?

A. Yes, very largely that. The city of Vienna has gone fifty to sixty miles for its water supply, to a very pure source in the mountains. That is rather an exception. Before that they had been using the river-water, and scarcely required any storage-basins.

Q. Is the water satisfactory in quality?

A. Its appearance is that of spring-water. A great many German cities are poorly supplied, but they are going ahead faster now.

Adjourned to Wednesday, Nov. 28, at 4 P.M.

EIGHTH HEARING.

NOVEMBER 28, 1882.

The Commission met at 4 P.M. All present except Mr. Caldwell. Mr. Greenough in the Chair.

STATEMENT OF EDWARD S. WOOD, M.D., PROFESSOR OF CHEMISTRY AT THE HARVARD MEDICAL SCHOOL.

Dr. BLAKE. — I think, doctor, you had better give us a synopsis of your official knowledge of the condition of our water supply, if you prefer that method, and then we can ask questions afterwards.

Dr. WOOD. — I would prefer to have you ask questions. I can only say that, as you all probably know, I was one of the medical commission which recommended the taking of the Sudbury-river water in 1874, and our report was published in that year by the City Government. The natural condition of the water at that time is fully stated in that report, and I have no reason to think that the natural water of the Sudbury-river basin has been changed since; but I have not made any analysis of the head waters of the Sudbury river since they introduced the system of reservoirs.

Mr. GREENOUGH. — In brief, what was your opinion at that time?

A. It was favorable. We were ordered to investigate the Sudbury, Charles, Mystic, and Shawshine waters for the information of the Committee on Additional Water Supply. We reported

that the Shawshine was, chemically, the best water. It was also, hygienically, the best water, because its gathering ground was in a country which was not liable to rapid future growth and the sources of contamination in the way of mills and thickly populated districts were few; in fact, it was much better than the gathering grounds of any of the other rivers.

Dr. BLAKE. — Better at that time and prospectively?

A. Better at that time and prospectively. But the amount of water which could be obtained at that time from the Shawshine was not sufficient, and, consequently, it was abandoned by the water committee, and subsequently by the City Council. Then we reported that the Charles and the Sudbury were equally good, — that there was very little difference, — and, if the city of Boston could obtain better legislative authority in favor of one or the other river, they had better take that one. They had at that time obtained such legislative authority that they could control the Sudbury river far better than the Charles, and therefore the Sudbury was taken. We reported the Mystic supply the poorest of all, and it has proved to be so. The thickly settled sections of Woburn, Winchester, and other towns, to say nothing of the tanneries and Russell brook, and the other head waters emptying into the Mystic, were considered undesirable. If I remember correctly, our advice was to abandon the Mystic altogether.

Dr. BLAKE. — At that time you found the Sudbury water at its source sufficiently pure for domestic and cooking purposes?

A. Yes, sir; it is as pure as the head-waters of the Cochituate; that is, Beaver Dam brook was much purer than Pegan brook.

Q. Since that time there has been very little to corrupt the water from below the head-waters to any extent?

A. Not to my knowledge, I do not know of anything which would change the character of the head-waters of the Sudbury river from what it was at that time.

Q. So that whatever impurities are found in the water now are the result of our method of taking care of it, and storing it, and looking after it?

A. That would be the natural inference, and that is my own idea.

Q. Have you analyzed the water recently?

A. I have analyzed it within a month.

Q. Judging from the results of the analysis, could you form any reasonably correct estimate of the cause of the impurity?

A. I could not.

Mr. GREENOUGH. — What impurity did you find in it?

A. I found it was about the same as a year ago in November.

Q. Well, the water has changed in Boston within a month.

A. I made an examination for the Boston Water Board the other day.

Q. And you found that it contained a larger amount of vegetable matter than it ought to?

A. Yes, sir. On October 26th I made an examination of the water of Farm pond, Russell's basin, and the Bradlee and Lawrence basins, and on Nov. 10th I examined specimens from the service.

Dr. BLAKE. — As a result of that analysis cannot you determine what the cause of the impurity in the water is?

A. It is vegetable matter. It is not an impurity from animal contamination, so far as it can be detected.

Q. Is it vegetable matter held in solution?

A. That is my own idea.

Q. And decayed vegetable matter could only get into it from the storage basins? It is pure at its source, and there is not sufficient opportunity for it to become pure or clear from the vegetable matter, in its transit from the basins to where it enters the city?

A. I do not see how it can unless it meets with a large amount of vegetable matter in decomposition.

Q. Is there any way by which that matter could enter the river, that you know of, at this time?

A. I do not know of any. I do not know of there being any very great increase of population on the banks of the Sudbury, more than there was in 1874.

Mr. GREENOUGH. — Did you take these samples yourself?

A. I did not.

Q. Were they taken from the river?

A. They were labelled upon the bottles, and sent to me by Mr. Fitzgerald.

Q. There were none from the river?

A. No, sir, not from the river. I said I had not examined the river since I examined the head-waters of the Sudbury, in 1874.

Q. Do you consider that that water has an excess of vegetable matter?

A. Yes, decidedly.

Q. Higher than is considered healthy?

A. It is higher than is considered healthy.

Dr. BLAKE. — Will you read the results of those analyses, please?

A. Lawrence basin, albuminoid ammonia was 0.022. The water from the service on Nov. 10th was 0.0278 parts in 100,000.

Q. 27 in 100,000?

A. 278—ten thousandths.

Mr. GREENOUGH. — What would you consider to be a proper quantity?

A. 15 is the maximum, compared with 27, and the least is 22. The Lawrence basin takes water from Lake Cochituate?

Q. No; from the Sudbury.

A. I went over it since I received the first notice to appear before this Commission, and have taken the pains to look up the former analyses, so far as I had them in my own library, and those were monthly and weekly examinations made by Prof. Nichols, previous to using the Sudbury. It seems to my mind to point with certainty that the cause of the increased contamination must be due to the Sudbury-river basins in some way, and the analysis which I made this last month almost exactly corresponded with those made by Prof. Remsen a year ago in November, and the Sudbury basins had then been used for I do not know how long. But the last records I have of Prof. Nichols' analyses, I think, are

from July, 1877, to April, 1879. The average was 0.15; just the same.

Q. Be kind enough to read where those samples were taken from.

A. October 26, Farm pond; October 27, Bradlee basin; October 26, Dam 1, Dam 2, and Dam 3.

Q. How did Dam 2 compare with Dams 1 and 3?

A. It is the same as Dam 1, and better than Dam 3. Dam 3 was the worst one.

Q. What were the parts of Dam 3?

A. 0.0458, compared with 0.0388 for Dam 2, and 0.0388 for Dam 1.

Q. The water when you tested it in 1874 was at that time a highly colored water, was it not?

A. It was highly colored, but it did not have any such amount as this in it.

Q. This albuminoid is not necessarily dependent upon the color of the water at all?

A. Not at all. The coloring is vegetable matter, and the greater the color, other things being equal, the greater the amount of albuminoid ammonia.

Q. You would expect from the coloring that it contains vegetable matter?

A. The coloring matter is vegetable matter.

Q. The statement is made to this Commission that the water, as it leaves Dam 2, is whiter than when it goes into it — the water from the river?

A. Where is Dam 2?

Q. It is like a fork, the principal fork being the Sudbury, and Dam 2 would be the first dam on it, and Dam 3 on the other branch, and Dam 1 is where they come together. Dam 2 is the principal basin upon the main branch of the river.

A. And Dam 2 is on the line from Marlboro' or Milford?

Q. Well, I don't know about that.

A. I am not sure myself. It is eight years since I was there.

Q. Dam 3 would be north of Dam 2. The principal branch of the river comes through Dam 2, and the statement is made to us that the water is a little darker when it enters the basin than it is when it leaves that dam.

A. That may be.

Q. If that is the case, would you expect to find that the water had taken up vegetable matter in that dam?

A. I should think it might. I said other things being equal; but in flowing through the Sudbury basins the other things might not be equal.

Dr. BLAKE. — But the coloring is not dependent upon the presence of albuminoid ammonia?

A. If there were a very large amount of coloring the albuminoid ammonia would naturally increase.

Q. Exactly; but you might have perfectly clear water with a deleterious amount of albuminoid ammonia?

A. Certainly.

Q. You know something about the want of preparation of those basins?

A. I do not, from personal inspection. I have not been there since the basins were built, not having had an opportunity.

Q. Suppose a basin had a large amount of decaying matter in it, and was formed from land used for agricultural purposes, and there was a great amount of grass, peat, and loam; would that be sufficient to account for the result of your analysis of the water?

A. I should say that the covering of any territory, with any large amount of vegetation upon it, with water would increase the amount of vegetable matter very largely, and therefore may have increased the impurity of the water.

Q. Looking at the result of your analysis, do you think that allowing the water to stand for any definite time, say for three years or more, would be sufficient to effect the process of purification? Would the albuminoid ammonia be exhausted, and the water be rendered free from its presence, by allowing it to stand for a sufficiently long time in the basins?

A. It is my impression that that would be so, judging from the history of ponds, and mill ponds especially; that the bottom tends to become pure after a lapse of time. To use a countryman's expression, ponds work for about ten years and ferment, and decomposition goes on, and of course there finally comes a time, if the pond is kept at a constant level, when there is no longer any vegetable matter to decompose, providing there is a constant stream of water flowing through that pond. Of course the products of decomposition are washed out after awhile, and I see no other result that can be reached.

Q. Well, in our storage-basins there is no water flowing through them; they are prepared and intended to be used as reservoirs.

A. I know it; but how can they help being overflowed?

Q. But there is not a constant overflow.

A. At present the same object is reached by the conduit, which acts as an outlet?

Q. Yes.

A. Then there must be water flowing through it?

Q. I did not know you meant it in that sense, as a mill-pond.

A. Yes, sir, there is a constant action of the water. Of course, if the Sudbury basins are not drawn upon, there would be sufficient to make them overflow.

Q. You do not think three years would be sufficient to purify them?

A. It was distinctly stated by us in writing, I think, that the water should not be used for five years, and possibly ten, without dredging the bottom. That was our distinct idea at the time, and I think it was so stated in the report of the medical commission; but I will not be sure.

Q. Did you recommend that the bottom of the reservoirs be dredged?

A. Yes; or else that the ponds have sufficient time to purify themselves, at least five years, and possibly ten.

Q. At that time you apprehended this trouble if those recommendations were not complied with?

A. The recommendations were not complied with. That idea was also distinctly stated to us by one of the engineers, Mr. Davis, and Mr. Stanwood had the same opinion; and it was supposed at that time that there would not be any necessity for using the Sudbury within that period.

Q. Have you at any time detected the presence of sewage in the drinking-water of Boston?

A. I have not that I can swear to; yes, I have too, — Pegan brook; I can swear to that, because I could see the solid fæces going into the Cochituate.

Q. Were you called upon to testify to the impurity of the water?

A. I was called upon to testify at Natick before the county commissioners, I think, at some hearing to prevent the town of Natick from polluting Pegan brook. That was about a year ago, I think. There were the drain-pipes from a large hotel in Natick. I happened to examine Pegan brook as the contents of those pipes flowed into the brook, and thence into the settling-basins.

Q. It is not your opinion that the water in passing the distance it does from there to the city of Boston can purify itself by the exposure?

A. The sewage is so largely diluted that I do not think chemistry detects it; but I do not think the water is purified.

Q. And it is not free from danger, although you are unable to detect it chemically?

A. Yes, sir.

Mr. GREENOUGH. — Would you expect that a contagious disease in South Natick could be carried into Boston by the water?

A. It is a mooted question, and I cannot settle it.

Q. What is your opinion?

A. My opinion is, that even if it is largely diluted, it is luck and chance if we do not get something of it.

Q. I was reading yesterday a statement that I should like to have your opinion about. It is that the Seine, after flowing a few miles below Paris, becomes pure. Do you agree with that?

A. I should simply refer you to the statement of the English water commissioners, and the results arrived at by them after careful inquiry, and to Prof. Nichols' statement in some of the reports of the State Board of Health, where you cannot detect the sewage, because it is so much diluted. The amount of water flowing into the subsoil of any stream is very great. Of course every mile or half a mile of the river, each bank of a river or brook has its own collecting area, with the subsoil water flowing directly to the brook or stream; and if you dig a hole beside the river, either a large or small hole, the level remains the same, owing to this subsoil flow, and that level is almost constantly higher than the water in the river. In Lawrence the character of the water is very different. The water of the river is about one degree hard, and the water of the full basin is about five degrees hard. Consequently it shows that they have a constant flow of water toward the river. In a well-arranged filtering-basin they will pump large amounts, as they do at Lawrence and Waltham, without lowering

the level of the filtering-basin to the level of the river by the side of which it is located. That shows how much dilution may have to do with the disappearance of any contamination.

Q. You do not believe, then, that the germs of disease, when poured into drinking-water, are ever taken out of it?

A. I do not believe you can be sure of it. The only safe way is to never let it in.

Dr. BLAKE. — And, as a scientific man, you are utterly opposed to letting sewage into the water supply of any city or town?

A. Yes, sir; either directly or indirectly.

Mr. GREENOUGH. — You were employed by the Water Board to give testimony in regard to Natick?

A. I was.

Q. And you saw the unsatisfactory working of the present law?

A. I did. I saw the result was negatived.

Q. And in your judgment an effort should be made to get more satisfactory laws in regard to preventing the pollution of drinking-water?

A. I should say so, decidedly.

Q. And that considerable injustice was done to the city of Boston at that time?

A. I think it was. It is no reflection upon the Water Board or the city of Boston, at all; they did their best.

Dr. BLAKE. — Is it your opinion that the temperature of the water has a great deal to do with the growth of these water-plants?

A. Yes, sir; in all shallow ponds. The growth takes place in summer, and not in winter.

Q. As a remedy for that, you would recommend deepening the basins, and cleansing them from decaying vegetable matter?

A. Positively.

Q. And if that is done with our present basins we should have an appreciable improvement in the condition of the water?

A. It might not be immediate.

Q. No; but we would, in time, if we removed the cause of the present sources of impurity?

A. I should think so. If I understand the arrangement now, it is that the water can be taken through Basin 1, either from Basins 2 or 3 at will, — am I correct?

Mr. GREENOUGH. — Yes.

A. And that it can be allowed to flow either through Farm pond or not?

Q. No; it has got to go through Farm pond.

A. What has become of the canal?

Q. It is filled up?

A. It is filled up.

Q. Farm pond is not any worse off than Dam 2?

A. Dam 2 is at the foot of which basin?

Q. At the foot of Basin 2.

A. Leading from Basin 2 to Basin 1?

Q. Yes. Dam 2 has always had comparatively good water?

A. I am not familiar with them.

Q. I am sorry that you had no water furnished from the river

itself, so that a comparison might be made with the water from the basins?

A. I see no reason for a difference between the water of the river and that of the basins; but I have not inspected them lately.

Dr. BLAKE. — I think that would be almost decisive, and I should, for my part, certainly desire that the doctor be requested to examine the river-water at its source and just before it enters those basins. I think the results would be conclusive if they showed a decided difference, — I mean Whitehall pond, and the various ponds down the river.

A. Whitehall pond showed one of the worst results at that time. I would suggest that the Commission refer to the report of the medical commission of 1874.

Mr. SHEPARD. — If you are going to make any further analysis of the water of the river, I think it would be a good idea to analyze some from Cedar Swamp pond.

A. Cedar Swamp pond is one of the worst.

Dr. BLAKE. — If Dr. Wood examines the water outside of the basins, that would be the fairest method; and then if he compared it with the water in the basins that would show where the impurities come in.

Mr. SHEPARD. — Dr. Walcott, who went out with us the other day, said we had not gone to the source of the supply that was likely to be the cause of the trouble; that there was nothing at Whitehall pond that was likely to be objectionable; but the other source of supply is the swamp, the water of which has never been particularly looked after.

Dr. WOOD. — By referring to City Document 102, of 1874, I find a record of an analysis of Cedar Swamp pond, which is above Milford on the Charles.

Dr. BLAKE. — Even if the water is impure, or contains a large percentage of solid matter at Cedar Swamp pond, if that becomes very much diluted, it would not be a fair indication of the condition of the water outside of the dam. He should examine the water outside of the dam and in the basins also.

Mr. SHEPARD. — I should like to know what the condition of the Cedar Swamp water is.

Dr. WOOD. — At the proposed location of Dam 3, on September, 1874, the albuminoid ammonia in Whitehall pond was 0.0248.

Mr. GREENOUGH. — That is almost what it is now in Boston. There is one place where you have got it 0.024.

A. Yes, sir; in the proposed location of Basin No. 4, on Cold Spring brook, it was 0.0185; Angle brook, below Marlborough, 0.0104; Angle brook, at the proposed location of Basin No. 7, not yet built, I believe, .0009; Sudbury river, at Cordaville, 0.027, — a sample taken just below the woollen factory; at Ashland, and above Ashland, .031, and below Ashland, .036. That is on p. 43 of City Document 102, 1874.

Dr. BLAKE. — You find nothing in the water that cannot be accounted for by the presence of decaying vegetable matter?

A. No, sir.

Q. No specific cause of pollution?

A. No, sir.

Q. Simply such as you would expect from natural lands partially excavating them and making reservoirs of them, and leaving them with all the natural growth of vegetation and loam, and that exposed to a high temperature in the summer; and the decay of that vegetable matter would account for the troubles we are now suffering from?

A. I should think so, sir. I should think, even in the case of the decaying vegetable matter, that it affords food for the growth of *algæ*, and gives rise, as a consequence, to an increased growth of *algæ*, which, in their turn, must decay; and some of these, as we all know, give rise to very disagreeable odors and tastes.

Q. So that at all times during your professional connection with the water you have been quite satisfied in your own mind as to the cause of the disagreeable taste and color and smell of the water?

A. The color oftentimes comes from the head-waters, and usually disappears by proper storage, so that a highly colored brook-water upon being properly stored, as it always had been in previous years, loses that color. The Beaver Dam brook water is highly colored, and by being stored in Lake Cochituate loses a large portion of that coloring matter, and we receive the water in the city very slightly colored.

Q. So that taking a highly colored water and storing it in proper basins, which have been prepared by cementing the bottoms or removing the loam, or by building an artificial basin of stone, you would consider that the water would lose its color, and not have this decaying vegetable matter?

A. Very largely, sir.

The Commission directed the City Engineer to procure samples of the water of the river and the basins at various points, to be analyzed by Dr. Wood.

Dr. WOOD. — I should like to state that, in my opinion, November is a pretty bad time, because it shows the water at its worst. As the surface-water is being cooled by the beginning of cold weather, it causes the water on the surface to sink, and the water at the bottom of the pond or reservoir, whichever it may be, rises, and you get all the impurities which have been collecting in the water which has been standing during the whole summer. That is very well illustrated in Fresh pond, at Cambridge. In November and December we get a very large amount of apparent impurity in the water. We get then the result of the summer's decomposition at the bottom, and we get it in our service-pipes. That disappears largely in the spring and reappears every fall. So that, in an analysis of a water in November, you may reckon upon getting the worst results.

Mr. GREENOUGH. — Then we would not expect the water to show as bad as this?

A. Any pond water?

Q. Our water.

A. Probably not.

Q. Not show as badly in the spring as now?

A. Probably not.

Dr. BLAKE. — In your opinion is there any process of filtration that can be applied to our system of water supply with beneficial results?

A. I should not dare to answer that question. I have not thought of it with sufficient care to warrant me in giving an opinion.

Q. What measures would you recommend for improving the quality of the water in purifying?

A. That is a pretty difficult question, and requires a great deal of consideration. I have an opinion, — but it is one that I could not support in any way; but I should say the first thing was extreme watchfulness, — and I have no doubt but that has been already resorted to; to take water from whichever reservoir or source that is apparently the best; to utilize the purer sources as much as possible, and the most impure sources as little as possible; that is, if the Sudbury-river basins are impure, to use Lake Cochituate; if Basin 2 is bad and Basin 3 is good, not to use Basin 2, and *vice versa*. I cannot now see anything else but time.

Q. Would you not recommend the excavating of the basins?

A. I mean in addition to what I have said. I have said that before.

Mr. GREENOUGH. — Even if that were done, you would expect that we should have impurity in our water supply?

A. I do not expect the Boston water will be pure for many years.

Q. Therefore we ought to have so large an excess of supply that we can cut off any portion at any time it became impure?

A. I should think so.

Q. Do you happen to know anything about the consumption of water in other cities and towns? You know something about the consumption of water in Cambridge?

A. It is very low; and it is due to good water superintendence. It is due to one man, and to only one man; and I think it might be done in Boston if you had the right man, and he had full control of the matter.

Q. You have no doubt the consumption in Boston could be largely reduced without any disadvantage to the public?

A. It could be very largely reduced. I am not an expert in the handling of water systems, and pretend to know nothing about it practically. But I know that the system of inspection in use in Cambridge is such that a leak can be located within a few hundred feet, and that the system of inspection has resulted in vast benefit to that city.

Q. It has cut your consumption down to the vicinity of forty gallons a head?

A. Forty-six, I believe.

Dr. BLAKE. — In the preparation of storage-basins for present or future use, you would recommend that greater care be taken in their preparation than has been used?

A. I think so, if there is a probability of their being used within ten years.

Mr. GREENOUGH. — Do you not know, as a matter of fact, that there never has been a time within the last ten years when the city of Boston has not been to the limit of its supply?

A. I know it was so in 1875, and earlier; but I think there ought to be enough supply in those basins to prevent additional basins being used so soon. It was supposed, at the time, that there would be sufficient supply in the collecting area of Sudbury river to last Boston a good many years, even with an extravagant waste of water.

Dr. BLAKE. — Have you any remarks to make on this subject, in relation to methods of purification of the source of supply?

A. I have nothing to offer except what I think I have mentioned before. I think the result of the analyses of water in the past few years, together with those made before the introduction of the Sudbury-river water, show with a great deal of certainty that the present impurities and sources of contamination come from the Sudbury district.

Mr. GREENOUGH. — Is this matter in the water wholly in suspension, or in solution?

A. Largely in solution. Of course there is a good deal of insoluble matter which is brought from the present reservoirs and basins, and which is undergoing decomposition. The products of that decomposition are largely soluble in water. Take sulphuretted hydrogen. I think all of you know that at the time the first dams were built, and the water was let into those basins, a piece of cloth saturated with acetate of lead, and hung upon the lee side of the basins, very quickly became blackened from the sulphuretted hydrogen blowing from the ponds. That sulphuretted hydrogen must have come from the decaying vegetable matter at the bottom of the pond. That state of things lasted several months, and I do not know but longer.

Dr. BLAKE. — Would the vegetable growths require organic matter for sustenance and growth?

A. That is one of their foods.

Q. The removal of that, and lowering the temperature of the water by increasing the depth of the basins, would naturally retard or diminish the amount?

A. There is no doubt but deep storage is the best, and that shallow flowage increases the tendency to vegetable decomposition at the bottom of any pond or basin.

Q. Because of the rise in temperature?

A. Yes, sir; by the action of the sun.

Q. Suppose it were possible to shut out the sun by covering the basins, you would recommend that as a preventive measure, to some extent, would you not?

A. I hardly see how it would be possible over a very large area. They tried to remedy that trouble somewhat in Lake Cochituate by building a dam so as to keep the water pretty deep over a large area. It was recommended by us in our supplementary report, that the shallow flowage should be remedied in some way, and they did so by building the dam.

Q. Of course it would be desirable in the construction of all future basins and reservoirs to have as deep storage as possible?

A. Yes, sir.

Q. Deep storage and clean basins are the remedies, or we shall have to look for no improvement in our water?

A. Yes, sir, I think so.

Adjourned to Nov. 29, at 4 P.M.

NINTH HEARING.

NOVEMBER 29, 1882.

The Commission met at 4 P. M. ; all present.

STATEMENT OF PROF. ALPHEUS HYATT.

Mr. GREENOUGH. — Prof. Hyatt, we believe you know more about the zoölogy of our water supply than any one else, and we want you to tell us what you know about the habits of the *Spongilla*.

PROF. HYATT. — Do you mean by that a general question?

Q. Yes, the *Spongilla* such as we discovered last year.

A. The habits are various. It grows mostly in water which is in motion. It does not as a rule, in my experience, grow very abundantly in water which is perfectly still. It must be where there is sufficient food. It is usually attached to hard substances. That is a general statement of its general habits.

Q. It grows generally in ponds?

A. In ponds, reservoirs, and streams, but almost invariably in water which is in motion, and in moderately pure water. In fact, I should say it demands good water.

Q. The presence of the sponge in the Boston water would be rather a testimony to its goodness?

A. Where the sponge is living, where it is alive, it would be a testimony that the water is good. In qualification of this, I would say that I have known of this form of pond sponge, the *Spongilla lacustris*, to live in my laboratory for quite a number of weeks under conditions which I never supposed possible. I never supposed any animal would live in water which had been kept in such a small quantity in proportion to the amount of the animal in it for such a length of time.

Dr. BLAKE. — You had not the conditions there which you usually associate with this growth?

A. Exactly. I had the wrong conditions altogether.

Q. Stagnant water?

A. I had conditions under which I thought it would be impossible for it to live that length of time. The water did not seem to become stagnant.

Q. That, in a measure, modified your views as to its growth?

A. Yes, in regard to this particular kind of sponge; it would not in regard to others.

Mr. GREENOUGH. — What is the food of the sponge?

A. The food is microscopic, both animal and vegetable. The

food is very minute. The City Engineer wrote me to bring up a diagram and some preparations. I have not the preparations, but I have the diagram, if the Commission would like to look at it to see the general character of the sponge. This is not our fresh-water sponge. [The diagram was exhibited.] This represents commercial sponge. I have here a specimen of a common sponge. You observe that in all sponges there are large and small openings. This diagram represents a sponge attached to a rock. I have slit it in half, and I show you the cut half so as to exhibit the inside of the sponge. I have not the outside. The animal is surrounded by a skin, represented by this yellow line. Here you see large canals running down into the animal. Those large canals have small ones, and others connecting with the water through small openings. These red dots are properly the stomachs of the sponge; it has a great many of them. The stomachs are lined with peculiar cells, which act as digestive organs. This blue represents the food going into the stomach from the outside. The food goes in at these minute apertures. The small sacs receive the food when it is carried through all the channels. The outer part is a sort of sieve in the water; it keeps out large food and lets in small food through the minute pores, which finds its way through these canals into these little sacs. After digestion takes place the excrement is thrown out, and finds its way from the inside to the outside through the larger canals. The excrement is a minute pellet, very small, but very abundant, — so abundant that in some of our sponges it is quite remarkable. I should say it does not pollute the water. I do not regard the sponge in a healthy condition as injurious to the water whatever. It must be an animal which clears out an immense quantity of vegetable and animal matter. It is a creature possessing an organization requiring a good deal of food, and it is feeding all the time.

Dr. BLAKE. — Is there any change in the process of digestion that renders the excrements inert?

A. That I would not say. I only know that the food is taken in, and the usual changes take place, and the results are thrown off; but I should not regard them as injurious.

Mr. GREENOUGH. — The sponge is generally regarded as on the line between the animal and the vegetable?

A. No, sir; it is an egg-producing animal.

Q. It is not a sentient animal, is it?

A. Yes, sir; but it has no nerves. In the young it is very active. It has no power of selecting its food, and it is found living in localities where food is provided for it. If the food is injurious the animal is injured, and if the food is healthful the animal improves. It has many stomachs, which are only discernible by the microscope. You can only say it is a very delicate animal.

Q. The *Spongilla fluvialis*, I believe, was found last year?

A. That was a mistake in the name. It amounts to nothing. It was about the same so far as that is concerned. The only difference that is of any value would be in the habits and peculiarities of this sponge. I am undecided what to call it. I have two names

under discussion, one is the *Spongilla Dawsoni*, and the other the *Spongilla paupercula*.

Q. What do you mean by *paupercula*?

A. It is a name given it by Bowerbank, and is rather imaginative, and means nothing one way or the other.

Q. Do I understand that this sponge lives upon *algæ*?

A. No, sir; it lives upon the spores of the *algæ* if supplied.

Dr. BLAKE. — What is the natural age and duration of these sponges?

A. The average duration is about one season. They usually die in the latter part of the summer, in my experience. But still there is a great difference in different ponds and different places as to their duration. It depends, apparently, if I am right in my supposition, — and it is wholly supposition, — upon the change of temperature. The danger, I think, from the sponge, is wholly due to the suddenness with which decay takes place. Whether this particular sponge is tougher than the others or not, and whether it can stand more bad water, I think is probable; but after death it unquestionably goes very rapidly like all sponges.

Mr. GREENOUGH. — You saw the sponge last year and tasted the water?

A. Yes, sir.

Q. You have no doubt the taste in the water was produced by the decay of the sponge?

A. You mean in the whole of the lake as it came into the city?

Q. All of the taste in that water came from Farm pond, and that was the only place where the taste came from?

A. I did not know whether you referred to the taste of the water I experimented upon, or to the water that came from the pipes. I inferred that the taste in the water which I examined was due to the sponge very largely; but, at the same time, I should not want to commit myself to the opinion without investigation, that the taste was entirely due to that. I do not think it would be fair to say that.

Q. I think you would have been led to that conclusion.

A. It is quite a reasonable conclusion, because everything else had failed to account for it. There was nothing to offer itself. It seemed to me to be very near to the facts, as I observed them.

Q. Do you not suppose there are sponges growing in Farm pond to-day?

A. Yes, sir.

Q. Why do we not get that taste to-day?

A. I have thought about that, and it is a question of quantity. A certain amount of sponge will affect a considerable quantity of water; that is the general opinion. I find the best English authority on sponges, Bowerbank, and, I think, Mr. Carter also, who is another authority, both of them speak of *Spongilla* as capable of affecting a large amount of water. There seems to be a general opinion among the authorities that it is so.

Q. You think sponges come into Lake Cochituate one year and die the same year?

A. I should think so.

Q. And in some years we find them in the fall that they die, and they affect the water at that time?

A. I think that is the only explanation, so far as theory is concerned. I have not investigated the matter in such a way as to make my opinion positive.

Q. They cannot flourish except where food is found?

A. No, sir.

Q. And where *algæ* and other microscopical food is abundant they will grow?

A. Yes, sir.

Q. And if they die in the fall you would expect trouble?

A. Yes, sir.

Q. How do you account for this peculiar taste?

A. I have not investigated that matter and looked at all the conditions; consequently I cannot express a decided opinion; but my opinion would be that the quantity in certain years would not be the same as in other years, as is the case in other animals. There is a relation between the food and the animal which is very well understood. When the food is abundant the animal is abundant. If the food decreases, or the enemies of the animal become abundant, it will be destroyed or decreased, and when the enemies die out, or the food becomes abundant, the animal would increase again.

Dr. BLAKE. — I suppose the question of temperature would influence it very largely?

A. Yes, sir; very largely.

Q. And if you had food for the animal in the summer you would expect it to increase?

A. I cannot answer that question better than by saying that when the conditions are otherwise favorable, and the supply of food is abundant, you might expect a large number of the animals.

Q. A hot summer would furnish those favorable conditions?

A. Possibly; but I do not know. I do not like to say anything about a particular thing unless I know, and I do not know that a hot summer is particularly favorable to the growth of these sponges.

Q. Inasmuch as they die during the cold weather, and grow during the hot weather, the natural inference would be that hot weather is favorable for their growth, and I think it fair to infer that their growth would be rapid in a hot summer.

A. It may be.

Mr. GREENOUGH. — In other words, if the conditions are favorable to the rapid growth of *algæ*, we might expect the *Spongilla* afterwards.

Dr. BLAKE. — Certainly.

Mr. GREENOUGH. — Prof. Hyatt, do you agree to that?

A. The conditions are very complex in all these things. I like to reason logically about these matters. I should not like to express an opinion as to whether a hot summer would be favorable to the growth of the sponge. That would be a subject for investigation and decision.

Q. You would expect that the animalculæ would be found in

the same condition as those which produce the growth of *algæ*? If shallow flowage and high temperature and decomposing vegetable matter are present, I think you could logically expect to get other small microscopic plants for the sponge to feed upon?

A. I will put my doubts before you in another way and you will see: In Maine, where they have rather short summers sometimes, and where the water is extremely cold, you have these sponges in great abundance, and of different species, and they grow rapidly; yet the water will be clear while containing a great amount of living animal and vegetable spores, as I know by investigation, and small microscopic animals and plants. I think, therefore, we could not say that the heat of the summer would have anything to do with the abundance of these sponges.

Q. Except so far as it increases their food?

A. If there were sponge food I think the sponge would be very abundant, because it seems, from my experience among the sponges generally, that that is about the turning-point in the favorable conditions. When and where the food is abundant they will grow abundantly, provided there are proper places for them to grow upon.

Q. You do not happen to know of any animal which feeds upon the sponge?

A. There are a few animals that eat the sponge, but they are very few. I do not know of any fresh-water animal that eats the fresh-water sponge.

Dr. BLAKE. — Is it not admitted that all these water-plants grow more rapidly in shallow flowage, and where you have a comparative high temperature in the water?

A. That depends upon the species of the plant entirely, and of the animal, and the temperature at which you will find them most abundant.

Q. Do you find them growing in abundance in cold weather?

A. In regard to *algæ* I cannot say. In regard to animals I can say positively as a rule they are not so abundant — that is, fresh-water sponges and such animals — during the winter as they are during the summer; they live only a single season. Their method of reproduction makes them wholly a summer animal. They do not live through the winter; they die in the fall. They are reproduced by a peculiar process, by peculiar bodies which are not represented in marine sponges. All fresh-water sponges are provided with peculiar oval bodies, surrounded by a hard coating of chitinous matter. The sponge decays, and these seed bodies remain either floating about, on the bottom, or else in the mass of the sponge itself, and in the spring develop young sponge.

Dr. BLAKE. — Do you find these sponges in the deep lakes?

A. I think they do not grow at any great depth. I have never looked for them in deep water. I have always found them in shallow water.

Mr. GREENOUGH. — The growth of the sponge is practically out of anybody's control, so far as I can see. How are you going to help having the sponges grow? You cannot cut off their food, and you say they will grow in abundance in beautiful clear water?

A. Yes, sir.

Q. So that if we found no *algæ* visible, that would not prevent the sponges from flourishing like a green bay tree?

A. That is a question that cannot be decided off-hand.

Q. If you covered the bottom with mud, you would not prevent their growing there?

A. This *Spongilla lacustris* is said to grow right on the mud. Mr. Van Vleck said he saw it growing on the mud. I did not see it.

Mr. WIGHTMAN. — I think, if he had investigated it, he would have found it on stones. I looked at it very carefully, and I was not able to find the sponge itself unless there was something hard for it to grow upon.

Prof. HYATT. — I am glad to hear that. It solves one difficulty that annoyed me very much. He may have been right, after all, in this way: The young sponge must have something to settle down upon. I do not believe it is possible for it to settle down upon mud without being choked to death. Then after it gets to growing it may be possible for it to grow down, or stretch down, and be gradually covered; but wherever the mud grows it is going to kill the sponge. All the specimens that came from there had brown tips to them, and I think they had a hard place to begin on; that the mud gradually accumulated around them and killed off the base. I did not see it myself. I merely saw the specimens that were said to come from mud.

Mr. WIGHTMAN. — I looked over it very carefully.

Prof. HYATT. — Did you go around the pond?

Mr. WIGHTMAN. — I went all around the pond, but, not being a scientific man in that way, I did not know how to investigate it; but I was not able to find any sponge there except it had something hard to grow upon. If we found them on the mud we invariably found something hard underneath it.

Prof. HYATT. — That is both reasonable and natural.

Mr. WIGHTMAN. — You will find them on a little stick.

Prof. HYATT. — That has always been my experience, that they grew upon something hard, and I was surprised to learn that they grew upon mud.

Mr. GREENOUGH. — Would the sponge grow in water polluted by sewage?

Prof. HYATT. — I should not like to say under what conditions it would not grow. It certainly grew in a very extraordinary manner in my laboratory.

Dr. BLAKE. — Is there any way by which we can restrict the growth of *algæ* in our storage-basins?

A. That is beyond my department altogether. It is too complicated a problem for me to express an opinion upon.

Mr. GREENOUGH. — You are not familiar with the habits of *algæ*?

A. I do not know enough about that department to express an opinion upon it.

Dr. BLAKE. — Then, according to your belief, the only way to get rid of the *Spongilla* is by an annual cleaning of the basins, and the places upon which it grows; you cannot prevent the growth in

any other way, and the only way to prevent its effects is to clear it out before it decays or after?

A. Well, if that annual cleaning was sufficient to take off the germs, it would destroy the sponge.

Mr. GREENOUGH. — If you could find a bed of sponge and empty upon it a cart-load of dirt, it would prevent the germs from sprouting?

A. Yes, sir.

Q. And you would not have any more of them there?

A. You would have them next year, but it would not take long for the streams that fed the pond to bring down enough to repeople it with sponges. You could not possibly clear the pond so you would not have a crop of sponges every year.

Q. Do you suppose we have sponges growing all over Stony Brook and Sudbury river?

A. I do not know that river and brook well enough to say; but it is probable that they are growing there. You will find them more or less in all fresh waters.

Mr. WIGHTMAN. — We found them in Basin 1 when we drew the water off to repair the pipe.

Dr. BLAKE. — You found them in greater abundance where you have rocky or stone bottom for the sponges to attach themselves to?

Prof. HYATT. — It is a curious fact that they grow in lakes with muddy bottoms where attachments can be made to sticks and the roots of trees. But the mud does not affect them unless it is stirred up. It is nothing but a mechanical process of choking. They would not grow in a muddy stream; they grow only in good, clear water. After a certain period in the year, for instance, late in the year, you will find them decaying. I have never seen these sponges decaying; but I judge from my knowledge of marine sponges, that at certain seasons of the year they decay very rapidly. I have seen marine sponges, immense beds of them, undergoing very rapid decomposition under very fine running water, part of the sponge alive and the rest of it dead. I have seen occasional specimens of these green sponges in which part of it was alive and part of it undergoing decomposition. Those were brought from Farm pond; but I had not any occasion to see the general decaying of the sponges there, which, however, I have no doubt takes place at the proper season. I have had some practical experience in regard to decomposition and its causes. When this matter arose I thought, and since then I have come to the conclusion, that the capacity of the sponge for quick decomposition can be accounted for by its open structure. It has a very open structure. It is so open and porous that it decomposes throughout at once, and very rapidly. The rapidity of the decomposition of animal bodies is an important element in this problem.

Mr. GREENOUGH. — Is the skeleton of the sponge animal or mineral matter?

A. It is both animal and mineral. If I had a slate or black-board I could show you. The skeleton in the fresh-water sponge is made up of minute *spicules* like needles, and they are bound together by the tough, horny matter which surrounds them. The

horny matter decays rapidly, but not so rapidly as the fleshy part. The *spicules* are largely mineral.

Q. Then that mineral substance could not be taken from *algæ* alone?

A. It is silicious. Of course it comes from the food, probably in all forms; but just where it comes from it is impossible to say. I should think more likely it came from vegetable food; very likely that contains in some cases considerable silicious matter. It might come from animals and plants which contain more or less silicious matter. There are plenty of sources that contribute such matter.

Q. Is there any mineral matter in the *algæ*?

A. There is more or less in the covering, it is supposed; but in the *spores* I cannot say. The *Diatomes* are a kind of plant which probably enters very largely into the food of these animals, and which has a skeleton composed entirely of silicious matter. At the same time I do not wish to express an opinion that the sponges get their silicious matter from that source.

Q. The manners and customs of the sponge do not seem to be very well understood as yet?

A. You can see that there is something understood. It is about as well understood now as most animals are. Science nowadays has gone to the extent of mapping out completely the habits of but very few animals. Even man himself is not well understood, and you do not know what to do with him in sickness.

Q. You mean to say the sponge will grow in rivers where the food is tolerably abundant, and will reproduce itself from year to year if the water is good, and if there is sponge food?

A. Yes, sir.

Q. And it dies every year, and we do not notice it because it does not die in sufficient quantities, and there are not enough dying to pollute the water we drink?

A. Yes, sir.

Q. And suppose we do taste it, it has probably grown in excess of its usual quantity that year?

A. Yes, sir.

Q. And if that year the water has been subject to *algæ*, you would look upon that as a primary cause of the growth of the sponge, would you not?

A. Yes, sir, I should be disposed to. At the same time I should add that it is a matter which is open to investigation; that it is not an opinion which is founded upon direct investigation; it is an inference.

Q. And you have also known sponges to grow in beautiful clear water, with no *algæ* in it?

A. I should not say that.

Q. No *algæ* you could see?

A. The microscopical food would be just as abundant, and you could not see it. I have seen plenty of water that was good, and yet full of all sorts of animal spores. Sponges must be fed just as cattle must be put into a certain kind of pasture. You cannot expect to find buffalo where there is no grass.

Dr. BLAKE. — And you cannot expect the sponge where there is no *algæ*?

A. You must remember that *algæ* are only one part of this food. There are a large number of microscopical animals which it feeds upon. It is not alone the plants, but the animals must be reckoned in. We must speak of both together.

Q. There must be certain conditions of water favorable to the growth, support, and development of both *algæ* and the animals which serves as a food for the sponge?

A. Yes, sir.

Q. Now, what are those conditions?

A. That I cannot answer, because I do not know. I do not know what temperature is particularly favorable to the growth of this species, and it would be impossible to ascertain without a great deal of work.

Q. In a general way a high temperature of water is favorable to the growth of both those?

A. I should rather have some one who knows something about *algæ* answer that. So far as the sponge is concerned I have already said I knew some species which grow where I knew the water was very cold. It requires direct observation upon the different kinds of sponges.

Q. But you have the growth of different kinds of sponges, more marked in summer when the temperature is high?

A. That is very true.

Q. Is it not fair to infer that heat is a factor in its growth?

A. You will observe that a certain amount of heat is favorable to the growth, and a certain larger amount not favorable. If you ask me about the temperature for the commercial sponge, I would say the most favorable conditions are between 50° and 60°. If the average of the winter months is below 50°, you would have an inferior quality of sponges. If the average went above 60° the same result would happen, and they would become very coarse. In both cases decrease below a certain average or excess above a certain average of temperature produce a similar result.

Q. But high temperature is what we want to get at. That seems to be necessary to develop growth. If a sponge reaches beyond a certain point, its fineness and value for commercial purposes and its quality are impaired. We are not considering that commercial quality, but we want to get at the conditions which promote its growth, and it seems to me from what you say that high temperature does that?

A. But you see a certain amount of heat is favorable for man's existence and best development. If you increase the temperature above a certain point you afflict him; if you increase it above another certain point you kill him. With animals it is the same. Man is an animal. A certain amount of heat is favorable to us, and above a certain amount is unfavorable.

Mr. GREENOUGH. — Do you suppose it would be possible to keep the sponge right along and not have it die?

A. No, sir; a sponge is most difficult to keep alive. This is what excited my curiosity about the sponge I referred to before.

I had never seen a sponge that would live under such conditions.

Q. It would not be possible to keep a pet sponge?

A. Yes, sir, they do keep them in some aquaria. I never succeeded in keeping them. It requires very expensive machinery.

Q. Would it be possible to keep a sponge for a long time alive?

A. I think it would be very difficult. I think I understand the drift of your question, and perhaps I can answer it in this way: A great many animals can be kept in aquaria, which under natural conditions might die; by making the conditions which are most favorable, conditions of heat and food, all of which enter into the problem, and the size of the thing it lives in, which is also an element, you can keep an animal a long time, which under natural conditions would die at the end of the season.

Dr. BLAKE. — Do you know of a case of fresh-water sponge being injured by high temperature?

A. No, sir.

Q. Did you ever know of a commercial sponge being injured by high temperature?

A. Only by inference from the correlation of all the known facts.

Q. The sponges flourish most luxuriantly in the tropics. I suppose you cannot raise the temperature of water above a certain point, because you have no factor except the sun's rays.

A. Certain kinds of sponges grow in great abundance at the north, and in the deep sea. They will grow in good water which has an average temperature of 32°, and equally abundantly in the water in the tropics. Then along our northern shores they grow abundantly in cold and warm weather. They are like all animals: some are suitable to the tropics, and some are suitable to the cold water of the north.

Q. Is there any means known to scientists by which their growth can be retarded except by the removal of the germs?

A. No, I cannot suggest any that I know of at all that would not be injurious to the water.

Mr. GREENOUGH. — All running water is sure to have sponges growing in it practically?

A. Well, I should expect it. Nearly all brooks have places where the sponges collect, and, at any rate, the water flows into ponds which have more or less of this in them, and I should expect it in any series of brooks where the conditions are favorable.

Q. Then practically it comes to this, if the city of Boston wants water that does not taste of this sponge, it must have more than one source of supply?

A. That I cannot say. That is for the city of Boston to say. I can only give what little knowledge I have about the matter, and state the facts. All these problems depend upon investigation. Scientific men have no powers of divination. They have powers derived from special training, as other men derive their powers; and if there is a problem before them it must be worked out; they cannot expect to look into the future, and can look but very little into the past. They can see only as other men, and are trained only for

certain kinds of work ; it is not a fair thing to expect that they will do what it is impossible for man to do.

Q. There is no class of fish that eats this sponge?

A. None that I know of. They are remarkably free from enemies of that sort.

Dr. BLAKE. — The practical suggestion you may have to make, so far as you know, is to remove the sponges when we expect them to decay?

A. So far as I know now that would be the recommendation which I should give, with this strong proviso, that the whole subject has not been investigated and is not understood.

Q. In the light of the present condition of things, that would be the only recommendation you would make, and you would recommend that as a practical measure?

A. Yes, sir, I should make that as a practical measure, if it is fully understood, with the proviso I mention ; I would destroy the sponge every time I saw it.

Mr. WIGHTMAN. — I do not suppose that is possible. Take it in Lake Cochituate, these sponges must grow in ten to fifteen feet of water. I have seen them at that depth myself.

Prof. HYATT. — When I said deep water I meant fifty to sixty feet.

Mr. WIGHTMAN. — I have seen them dying there, and I do not think anybody could locate the place where those sponges were growing or dying in ten to fifteen feet of water. That is, you could not locate them, or tell where they were, and consequently you could not remove them.

Dr. BLAKE. — But you can remove them from the pipes and conduits.

Mr. WIGHTMAN. — Yes, sir.

Mr. GREENOUGH. — Do they require fresh air and sunlight to grow? Would it be possible for them to grow in the pipes of Boston?

Prof. HYATT. — At one time I thought the conditions were such that their growth in the pipes would be impossible. But I have had two or three facts come before me to show that they can possibly live in the pipes. That is, in dark places and inside the pipes ; but how far I cannot pretend to say.

Q. Have you any reason to believe that they are growing in the pipes in Boston to-day?

A. I have seen a statement to the effect that they are growing in the pipes, and I have heard from the City Engineer and others that they have gathered them inside the pipes.

Mr. WIGHTMAN. — What the Professor means is what I told him the other day : that the conduit from the lake for over a mile was lined with these sponges, and recently, within two weeks, we have drawn the water out of the Mystic conduit, which has not been done for a long time, and there is a very large growth of different kinds of vegetable matter there. I have not seen the interior myself ; but my assistant, Mr. Brackett, who went through the conduit, says there are sponges in there on that conduit. We have never had that taste in the Mystic water. It is evident from the

reports which have been read before this Commission that this sponge has been in Lake Cochituate more or less ever since the water was first introduced; so I do not think there is any question but that it will grow in the dark and in the pipes. But there is one curious thing about it. The conduit is six feet four inches high and four feet wide, and the pressure would be as great there as anywhere, and the current would be stronger than anywhere else.

Prof. HYATT. — That chimes exactly with all the observations I have made. That is, they seek a place where the current is rapid, and where the water is concentrated so as to bring a large quantity of food. At the beginning of the conduit, where the water came in, they would get a greater concentration of food than anywhere else.

Mr. WIGHTMAN. — The conduit is eleven to twelve miles long, and I do not think they find any food in that portion of it.

Prof. HYATT. — That species is a different thing from the species outside. That is what I suspected when you told me, but I did not think to ask about it. It is probably a different kind of sponge.

Mr. WIGHTMAN. — It looks just like it except in color.

Prof. HYATT. — But it is a different species of sponge, and has a different form.

Mr. GREENOUGH. — How many species of sponge are there?

Prof. HYATT. — I should think there are fifteen or sixteen kinds of this sponge in different parts of the world, but only six or eight known in this country.

Mr. SHEPARD. — I have heard the statement that after Prof. Remsen had made his investigation and said the taste in the water came from the decay of the *Spongilla*, Prof. Gray remarked that it was a wonder the thing had not been thought of before, because twenty-five years ago specimens of *Spongilla* were taken from the Cochituate conduit, and presented to Dr. Wyman, and he then said the result would follow. Do you know anything about that?

A. Yes, I know that was a statement made by Bowerbank. A portion of that same sponge went to Bowerbank, of England, — a great authority on sponges, — and he made several remarks about it. But they seem to have got these sponges out of the pipes themselves; but I did not believe that.

Mr. WIGHTMAN. — They took them out of the conduit.

Prof. HYATT. — I doubted it very much. I could not conceive of these sponges growing in the pipes. What the engineer says chimes in exactly with what I have said about the sponges. As I have stated, in the case of this *Spongilla* the species in the conduit is the same probably as that which grows on the undersides of stones and in dark places, and is not the same as the green sponge growing outside.

Mr. SHEPARD. — If the Water Board were informed, at that time, that such a taste in the water would follow from this cause, they ought not to have been puzzled in accounting for the taste, when they called upon Prof. Remsen to investigate the matter.

A. Well, the managers of the Water Department are not the same all the time. Their experience is not the same as that of a single man would be, and the experience was lost by new persons coming into authority.

Q. At the time Prof. Remsen made his statement it was hailed as something entirely new?

A. It was new so far as he was concerned.

Q. But the thing was known a quarter of a century ago?

A. Yes, sir.

Dr. BLAKE. — When Dr. Jackson investigated the water, thirty years ago, they found the sponge, and did not then connect it with the taste.

A. Certainly the opinion was expressed by the spongologists about that time; but I do not know whether it was brought to the attention of the Water Board.

Mr. SHEPARD. — I am told on excellent authority that Prof. Gray expressed his surprise that the solution of the problem by Prof. Remsen was considered as new.

Mr. GREENOUGH. — It was certainly new in City Hall.

Mr. WIGHTMAN. — It was certainly new in this country. If there was any such statement made before 1854, when we had the bad taste and when we had Prof. Jackson and Prof. Gray examine the water, and if they knew it, they certainly failed to connect it with the taste, and it must have been lost sight of.

Prof. HYATT. — It seems to me if a very thorough exploration and testing of all the different sources of corruption had been carried on year after year steadily, we could have found everything, and now be able to control the matter. I do not wish to express my belief that every time the water has tasted badly it is due to the sponge alone.

Mr. GREENOUGH. — Every time it has had that fishy taste?

A. I do not say that by any means. It is entirely open to investigation. It would be entirely unscientific for me to say so.

Q. If you could take a piece of that sponge and produce that taste in the water, you would not have any hesitation in saying that that was the cause?

A. And finding plenty of sponges in it. But I would not be understood as stating that this is exclusively the cause.

Q. Does any other cause occur to you?

A. Well, sir, I should want to investigate the place itself, and should not want to express any opinion until I had done so. The whole thing is a local affair. It is not a thing you can judge of by knowledge of the world. It must be judged by the general place and its conditions.

Q. Do you know any other marine animal which would produce that taste?

A. I think almost any animal or vegetable life in abundance would produce deterioration in the water, but I do not know any other animal that produces that peculiar cucumber taste. I know the sponge does. I do not know whether *algæ* do; they say they do not. But there is one peculiar thing about this that has been pointed out to me by the City Engineer: that this taste was ob-

tained only at a certain point in decomposition; and that I have also noticed myself. After Mr. Remsen gave me his vial I made some experiments, and entirely failed to get that taste, and I thought he was wrong. But I subsequently got it in the same way the City Engineer did, and, when he spoke of it this morning, I remembered the fact.

Q. If you had been called upon to express your opinion as to the cause of this taste in the water, would it have occurred to you that it came from the sponges?

A. That is pretty hard to say. I should not have expressed an opinion until I had gone through an investigation.

Q. I merely ask you in reference to this being an old discovery?

A. I did not know that. It has come to my knowledge since.

Mr. WIGHTMAN. — I suppose there is one thing you want the professor to state. I do not think he has expressed a very decided opinion about one thing, which perhaps he might have a decided opinion about. That is, taking into consideration the fact that these sponges will grow at perhaps what he calls considerable depths, they may grow and decay entirely unknown to those in charge of the water works, and whether there is really any way of being safe from that bad taste except by providing several places from which you can draw the water? That is perhaps not a scientific question, but perhaps it is a fair question to ask him, if there is any way by which you can tell whether they are growing there so as to clean them out?

Prof HYATT. — You can explore the pond with rakes, or some simple apparatus like an oyster rake, and could tell at once whether there is any growth upon the bottom. I should say in regard to cleaning the bottom that there is the practical difficulty, that you may not make the cleaning very thorough. Another thing is, that there grows with this sponge another animal, to which attention has not as yet been called, and which is usually mistaken for some form of sponge, and which under some circumstances might prove very injurious. That is one of the fresh-water *Bryozoa*. It grows in enormous masses, and is a sort of jelly as big as your head, or even larger. I have seen it as large in diameter as that table, — about three feet. When they are in that way they are in continuous masses, clumped together. I have not seen them in the pond, but naturalists who have been around the pond tell me they are there, and that with the sponge was thrown up a great quantity of the *Bryozoa* when the pond was cleaned. It decays in the same way that the sponge does in the fall, and passes through the same decomposition, and might be a source of pollution.

Mr. GREENOUGH. — And, in the absence of the sponge, might produce the same taste?

A. I doubt whether it would. It is decaying animal matter, but I do not think it is as offensive as the sponge. There is no question but that the sponge, when it is decaying, is the most offensive of all animals.

The CHAIRMAN. — You speak of using a rake in a deep pond to see where this sponge is. Suppose it was used, and killed a part

of the sponge, and there was no way to gather it from the bottom, would it not cause more trouble than it would to let it alone?

A. That is what I referred to. The only way is to treat it practically by trying the experiment.

Q. The only way would be to have different basins, so that you could draw off one and give it a thorough cleansing?

A. I have great question about the propriety of exposing the bottoms of basins, without having had any experience. If you expose the bottom by drawing off the water you kill an immense quantity of animal and vegetable life that would remain in healthy action if you did not draw off the water; that begins to decay, and when you let on the water again you have an immense quantity of decayed stuff which is liable to affect the water.

Dr. BLAKE. — We do that thing practically every year.

A. That is for the engineers to decide. I am merely speaking now as a biologist. It is a question which came up in my mind as you spoke about drawing the water off from the lakes. Whether such a result follows, or not, from the facts, the engineer can judge.

Dr. BLAKE. — The biologist would be the one to judge, not the engineer. You remove the conditions essential to life, and death follows.

A. Yes, sir.

Q. And every danger you would apprehend from exposing the bottom of the pond you would expect to follow the drawing down of the storage-basin?

A. I should say so. I should say the healthiest water is undoubtedly that in which animals and plants are living in equilibrium, in that condition in which life of both kinds is abundant, and in the conditions which we know to be very favorable.

Mr. WIGHTMAN. — And that you would call good water?

Prof. HYATT. — That is good water.

Mr. WIGHTMAN. — That is what our people do not think good water.

Dr. BLAKE. — I believe that in an aquarium you do not have shallow flowage or mud bottom, do you?

Prof. HYATT. — No; but a healthful condition of water is undoubtedly that which supports life, and in that respect it is the same as air. In these artificial basins you have different conditions; they are not the same as natural basins; the flowage is not the same as natural flowage. If you could produce natural conditions with a strong flow of water you would produce animals and plants, and you would have what would be right, it seems to me. It is utterly impossible to exclude life from those basins. That is out of the question. It does not make any difference how much cleaning out is done, they will grow there; consequently the problem is in producing not too much of one or the other.

Q. In the preparation of the basins you would empty them entirely?

A. As nearly clean, to start with, as possible. Of course I do not know anything about the preparation of basins, as I am not an engineer; but certainly the best conditions, after they were filled,

would be those as nearly natural as possible, whatever the locality might be.

Mr. GREENOUGH. — Is there anything else that occurs to you?

A. No, sir; but last year it was proposed to clear out all the muck from the pond, and it struck me at the time that that would not get rid of the sponge. By cleaning out the muck you would not clean out the sponge, by any means.

Dr. BLAKE. — Aside from this specific taste we are called upon to ascertain is the cause of the generally disagreeable character of the water, without reference to the cucumber taste. Now, the problem for this Commission to solve is, whether we can devise conditions which will make our water purer, better tasting, less offensive to sight and smell when heated, and to contain a less amount of solid matter.

A. Yes, sir. Do you wish me to say what I think about that?

Q. I would like to have your opinion as a scientific man upon that question on the general subject.

A. Well, I should say the Commission had a question about as difficult as it is possible to put before them, and one which would require a great deal of investigation; and I should say it is a kind of investigation that is not generally carried on in this country. The way foreign governments do such a thing is to employ people who are qualified to carry on such an investigation year after year. They do not expect to solve the problem in a week, or month, or year. They carry it on as a regular business, with a fixed purpose, and they generally accomplish a great deal. Their habit is to employ people, under proper direction, and continue them year after year. The solution of that problem is not done within a given time. I think that any scientific man who would undertake to solve it in a given time would not understand his business.

Q. I suppose the Commission would be expected to be able, by inquiring of experts, to arrive at the causes of impurities in the water?

A. I should not like to be one of the committee.

Q. You have not as much faith in science as the city government has?

A. I have a great deal of faith in steady, strong work, that has an object and is properly conducted; but expert testimony — testimony of all kinds — is open to some objection. It is given upon general experience, and does not apply to the spot itself, as a rule.

Mr. SHEPARD. — Your idea is, that before we can expect to come to any solution of the difficulty there must be regular observations of the water in the various basins, continued for a long time, — it may be for several years, — in the accumulation of facts?

A. I certainly think that is the only scientific method. That is the only means which I recognize of obtaining scientific testimony which would be worth having.

Q. And those observations would naturally be physical, applying to the look, taste, etc., of the water; and that there should also be biological investigations, to show what life is present in the water?

A. Yes, sir. A matter of such importance as that I have no hes-

itation in saying that it is not possible, and in fact it is not dignified, for the city of Boston to undertake to solve a problem of such importance as this, where other people as wise as they have failed, without a thorough, lengthened investigation.

Q. I heard a physician suggest to-day that there ought to be in the employ of the city of Boston some competent scientific man, whose sole duty it should be for two or three years to make observations on the water; and that while it might not be possible at the end of three years to discover the causes of the disagreeable nature of our water, yet there would be an accumulation of facts that might be of some advantage; and that we cannot expect to come to any solution of this problem until that was done. Do I understand you to agree to that?

A. I endorse that heartily. It is the only way to arrive at a decent solution of the scientific question. The examination should be made by a biologist; but there should be a physicist also. The matter should be looked into from all points of view. It is impossible to draw correct conclusions without having all the light we can upon such difficult problems. It strikes at the very root of all our knowledge of animals and plants. It is demanding of a scientific man the power of divination to ask him to express any sort of an opinion upon such a problem without an investigation of all the conditions relating to the place.

Q. It is proposed to ask the State, at the coming session of the Legislature, to establish a new Commission, with a fixed term of office for some years, whose duty it shall be to make those observations upon the water supply, within the limits of the Commonwealth. Suppose that is done, do you still think it would be of sufficient value for the city of Boston to warrant the expense of having some one to make a continued examination of our own water supply, provided the State do what is expected?

A. Well, I should think the city and State ought to coöperate together, but it seems to me the interests of the city should be represented fully.

Q. I understand that is intended. If that Commission is appointed, it is intended that they shall investigate all the water supplies of the large cities within the limits of the Commonwealth. But their duties would be very general over the entire State. Suppose such a Commission is appointed, ought we also to have some one to look after our own local supply, to make these same observations?

A. That would be entirely a practical question whether the State Commission could do all that is necessary for the city of Boston. It seems very desirable to me that the control of the investigation should be under one man, and he selected with great care; not a one-sided man, but one in whom the community had trust, who was scientific and capable of judging of this question from all sides; not necessarily a biologist, or any other ologist, but a man with a scientific education; a man capable of conducting all the different investigations that have to be made for the determination of the problem. So far as Boston is concerned, that ought to be carried out. Of course, if the State or city could both combine

upon one man, they could probably get a better one than either acting separately.

Q. Suppose that you were a member of this Commission, and had reason to expect that the State would appoint such a Commission as we have spoken of; would you then feel that you wanted to recommend the city to employ some one else beside, or leave the matter so that the State would do it alone?

A. That is a matter of which I do not see that I really have any means of judging properly.

Q. What I want to find out is, whether the local problem is sufficiently large and important that it needs the complete attention of one person, or whether it can be left to the person in charge of the problem for the entire State?

A. That would depend upon the State Commission. If the State Commission were composed of the right sort of men, they might possibly do it properly; but certainly the local interest of Boston in this problem is very great indeed, and the city cannot afford to leave such a thing to uncertainties. I should take the position that the city would have to be sure that their water supply would be properly attended to and investigated. Yes; so far as the importance of the local problem is concerned, I should say the city must have an investigation of its own. With such a large place as this, and so many inhabitants, they can afford to trust to no uncertainties; but whoever is employed, it seems to me, the direction of the work and the collation of facts had better be under one head in both the case of the State and city. The experience gained by a man superintending the whole State would redound to the advantage of the Commission of the city, in the collation of the reports of different observers. It seems to me there should be but one Commission, however many men you might employ to look after the local interests of Boston.

Adjourned to Wednesday, December 6, at 3½ P.M.

TENTH HEARING.

DECEMBER 6, 1882.

The Commission met at 3.30 o'clock P. M. All present except Mr. Bradlee.

A conference was had with City Solicitor Bailey, and subsequently with the members of the Boston Water Board, in regard to the defects in the law relating to protection of water supplies, and the practical efforts of the Board to enforce the same, and the difficulties which had been encountered.

Adjourned to Dec. 8, at 3.30 P. M.

ELEVENTH HEARING.

DECEMBER 8, 1882.

The Commission met at 3.30 o'clock P. M. All present except Mr. Bradlee.

STATEMENT OF PROF. W. G. FARLOW, OF HARVARD COLLEGE.

Mr. GREENOUGH. — Prof. Farlow, we would like to hear your opinion as to the causes of the growth of the weeds which infest our water supply, and what, in your judgment, it is possible for the city to do to prevent their appearance.

Prof. FARLOW. — I have examined personally Basin 3, and know something about the Cochituate Water Works generally. In Basin 3, and all waters where there has been bad odor, it has come from two or three species of plants. The plants existed in those localities before the basins were built; and by the making of shallow flowage the plants have been given the best chance to increase, and they are increasing at such a rate that they are now found in great quantities. They will cause little or no disturbance unless the water is very hot in summer, which it is almost certain to be in August. The plants are there, and, now that you have got them, you cannot get rid of them. The plants were there in the first place. You will find these plants in almost any swamp. They do not attract attention unless they give off a bad odor. They do not appear in very large quantities unless you flood the marshes, and then these things collect as a scum. Before Basin 3 was built, in all probability there were some places where the plants appeared in considerable quantity; but that was nothing to what it is now.

Q. Would not the *algæ* have appeared in these ponds anyway?

A. They were in Basin 3. Flooding the meadows with water would increase those plants. The *algæ* may be carried over from one basin to another, but they do not pass through the air to any great extent. They would pass through a tunnel made to connect one pond with another. I do not know whether there is any direct connection between Basin 3 and Lake Cochituate; if there is, there is no reason why the same plant should not appear on the borders of Cochituate.

Mr. GREENOUGH. — I understand the same plant has appeared on the borders of Lake Cochituate.

Mr. WIGHTMAN. — I should say it is very nearly the same thing; I could not say it is the same thing. The *algæ* in Basin 1 are what they call the *anabæna*.

Prof. FARLOW. — There are two, and at times three, species, which grow together and are mixed up.

Mr. WIGHTMAN. — They have a sort of a brownish color. The *algæ* that appeared in Lake Cochituate are almost exactly the same as was in the Mystic; they are green.

Prof. FARLOW. — They are all green in the beginning. The

brown indicates decay. When they begin to decay they become blue and then brown.

Mr. WIGHTMAN. — There have always been those *algæ* in Lake Cochituate.

WITNESS. — Have they never formed a scum?

Mr. WIGHTMAN. — Yes, they have washed upon the shore, but you would not see them in the form of a scum.

Prof. FARLOW. — That would not be so likely in Lake Cochituate, because the plants would be on the shallow margin. The lake is large enough so that the water is not likely to be still for any length of time, and when the wind blows with any violence the *algæ* would disappear. The size of Lake Cochituate, and the action of the wind, would keep it pretty clear; but in a small pond it would not.

Mr. GREENOUGH. — They tell me that Lake Winnipiseogee has been filled with *algæ*.

Prof. FARLOW. — They have had trouble in Minneapolis in the same way. Just as soon as a city takes pond-water for drinking purposes people begin to pay attention to the peculiar tastes in the water. They have had the same trouble in Minneapolis that we have had. I do not know how bad it is, but Prof. Arthur was appointed to investigate it, and sent on specimens, which are the same as we have with one exception. They all belong to one group of plants.

Q. After you get a pond infested with these things, how are you going to get rid of them?

A. You cannot get rid of them. The only remedy is in the shape of the ponds and the character of the shores. A pond that is shallow will give growth to plants like eel-grass. There is a number of different species botanically related to eel-grass which grow to be several feet long. In shallow ponds they rise to the surface. Just as soon as the water sinks these things stick up above the surface, and all the smaller plants which give rise to bad odors come with them. In case you have in shallow water those plants which in a dry season stand up out of the water, they are like nets to catch the smaller floating forms which then cease to grow and decay. In the Cochituate you do not have these plants for a good many reasons, so you are not likely to have much damage there. Horn pond is very shallow, there is a bar coming very near the surface, and in some places you might walk a good way across the pond. All over the shallow parts of the pond you would have these plants I mentioned as resembling eel-grass, botanically speaking.

Q. What are the conditions most conducive to the growth of these plants?

A. Meadow bottom, loam bottom. I think a loam bottom is the worst. A gravelly bottom is not so likely to be affected by them.

Q. Do they grow upon the bottom?

A. They start from the bottom. These larger plants start from the bottom and shoot up to the top of the water, and stay until late in the season.

Q. They only serve to assist the others?

A. Yes, by collecting the others and lifting them out of the water. If a plant stands up just about an inch above the water, and the water is gradually falling, and there is a scum upon the top of the water, it catches upon the meshes of these plants. This makes the floating plants which form the scum decay, and that affects the water.

Q. The water is sometimes filled with them?

A. Yes, but unless they begin to decay you do not have any noticeable trouble. They do not begin to decay unless exposed to a very bright sun. If you keep the water always high you are not so much troubled by them.

Q. But you might not have the water so full of *algæ*?

A. It is not because you have *algæ* that you have trouble. You may have *algæ* and not have much trouble. If the water is quite covered with scum the chances are you will have trouble. If you have a large body like Cochituate you cannot expect to have much trouble.

Q. The *algæ* do not appear spontaneously in water?

A. They have to be brought into it. In case of a new basin that you build, there is a chance that the plants are there in some mud-puddle or ditch, in the marsh which is flooded. In this country, the scum-forming plants extend as far West as Minnesota, and, probably, if you examine you would find them farther still. The species we have are not peculiar to this country. They are exactly the same plants they have in Berlin.

Q. It is practically impossible to prepare a basin where these *algæ* would not appear?

A. You can prepare a basin so that the bottom shall be much less favorable to the growth of these plants than it otherwise would be.

Q. How do you think a basin should be prepared?

A. It should have a gravelly bottom, if possible. A mud bottom is always bad.

Q. Why?

A. Because, in the first place, the floating forms are not *always* on the surface; they start at the bottom. If you go to Fresh pond at this season of the year, and pull up the weeds, you will find the same scum-forming plants that you find at Framingham. To show my class the scums, I have only to go up there in the fall and pull up these weeds. If it is warm, the small scum-forming plants are on the top. In this cold weather you will find these plants on the bottom, where they are brownish; but they will come up to the surface next spring. If you have a mud bottom these plants are more likely to be there resting among the remains of vegetation. If you have a gravelly bottom, these things do not take hold so well; they have to shelter themselves in the refuse of other plants.

Q. They do not grow any more rapidly from being exposed to a hot sun, but only decay?

A. I should say they do not grow more rapidly from being exposed to the hot sun, but they do grow more rapidly when the temperature is raised up to a certain point. They do not increase very rapidly until the July and August temperatures. You gener-

ally find them dormant at other seasons. They flourish better in a high temperature than other plants. They constitute the only group of plants which grows in the hot springs, as those of the West, or almost any other part of the world. There is a certain amount of vegetation on the margins of the springs, and the plants there are much like those you find here. That shows you how likely they are to stand the heat. In spite of that they are killed by the direct rays of the sun, particularly if raised out of water as they are by being washed partly out upon the beach and exposed there.

Q. The effect which shallow fluids would produce, then, would be only that other plants would lift the scum-forming plants out of the water?

A. Yes, sir, and there is another effect. Of course if you have shallow water the scum forms. Suppose a given area to be shallow water, and the scum forms on a large percentage of it, the water does not purify itself so fast from the decayed plants, as it would in a large depth of water. If the bulk of the water is very large you do not feel the same effects as if it were small, even when decay begins. Water purifies itself very quickly. From the time the trouble first came to Horn pond, I watched it, and found that in a fortnight the water became quite clear. I tried experiments in my laboratory, by bringing jars of water filled with the scum plants from Framingham and Fresh pond, shaking them as little as possible. Of course, by transporting the plants, they were somewhat injured, but, except in one case, that slime was almost cleared up in about three weeks. I have had jars of water with scum which I kept without changing the water, and I found that the scum disappeared in three weeks. At the bottom of the jar I found the remains of the plants, some having been entirely killed, and others ready to grow another season. There was still some life left. I kept the jars all winter in my room, and in the spring I found the plants there ready to grow again.

Q. There is, practically, no possibility of our eradicating the *algæ* from our basins in any way?

A. All you can do is to let them stand and purify themselves. Or, you can remove the mud and clear the basins.

Q. If you remove the mud, what would prevent the chances of their appearing again?

A. It would diminish the chances of their appearing, but I suppose it would be an expensive job.

Dr. BLAKE. — I suppose the *algæ* are affected by shallow flowage and high temperature?

A. Yes, sir. From what I have seen of these plants the model basin should be deep and narrow, and, if possible, with gravelly banks.

Q. Or, stone sides?

A. Yes, sir.

Q. And clean bottom?

A. Yes, sir, with even natural sides, and if the water is deep and a steady current flows through it would be very favorable. The worst possible thing is to overflow a marsh. At the time Basin 3

was built there never had been any talk about *algæ* in this country. And I do not suppose anything was known about them here.

Q. But I suppose we might learn from the mistakes committed in the preparation of the earlier basins?

A. Yes, I should think the experience was worth something. I am quite certain that a marsh should not be overflowed.

Q. You are quite certain experience shows that the best way to store water is in a basin from which all organic vegetable matter has been removed, and to deepen the depth of the water?

A. Yes, I think that is an important thing, to increase the depth. So far as I recollect, in Basin No. 3 the great trouble comes from the shallow places, the worst being up towards Mr. Temple's house.

Q. To what do you attribute the comparative freedom from *algæ* of Wenham and other lakes?

A. Wenham is a natural lake, the water is quite pure from the settling which has come through time, and the original purity of the bottom and cleanness of the banks prevents the growth of vegetation.

Q. And the depth?

A. Yes. I do not think there is any shallow place along Lake Wenham. It has steep banks, I believe, and that is the model for a pond. In Horn pond you have a sufficient extent of water, but you have shelving banks all round it; in one place I know it is decidedly shallow; then you have this nearly bare bottom at one end, possibly a third of the pond, which is nothing more than a shallow puddle where all sorts of things grow, and where the water sinks to very little depth in the summer.

Q. Have you investigated the storage-basins in other parts of the State?

A. Not personally. I have had specimens sent me from them. So far as storage-basins are concerned these troublesome plants are as common in remote localities as here. They have the same thing in Central Park, N.Y., particularly in those dirty little streams near the reservoir, and in the reservoir itself. There is a little stream of water passing along under the rocks, just below the reservoir, which I have seen perfectly full of these same plants in the month of June.

Q. We have conditions favorable to these plants in our basins?

A. Yes, sir.

Mr. GREENOUGH. — Are not the basins in Central Park prepared with much more care than our basins were?

A. I suppose the basins were all made there with care. There is nothing like eel-grass growing in the reservoir, but there is a little scum evidently washed in from the Croton aqueduct. I do not think you need anticipate any trouble from an artificial reservoir with steep walls and artificial bottom.

Q. Then you would not expect these plants in any artificial basin like the Bradlee basin, at Chestnut Hill?

A. No, sir. I remember the condition of the land before it was built, and walked over it several times while it was being

built. There is no very good reason for expecting the growth of the plants there, although they might be washed in.

Q. Even if washed in, if they did not find proper conditions for their development, they would not develop much?

A. No, I should not think they would.

MR. GREENOUGH. — What do these things live on?

A. The nutrition of these plants has not been satisfactorily studied. They have to live on the water itself. They do not get any nourishment directly from the other plants. They are not parasites.

Q. They do not grow in pure water?

A. No, sir; they are more likely to grow in water with a rich organic bottom, and in all probability they must take the organic substance up. They do not grow so well, if at all, in pure water.

DR. BLAKE. — Would they not grow better in water holding a large amount of solid organic matter in solution?

A. Yes, sir. The more organic matter you have, the more of these plants you will be likely to have

Q. What is their process of reproduction?

A. They keep budding, the common ones form knobs or buds, and the knobs drop off and keep producing new knobs. One of our common species produces reproductive cells, called spores.

Q. Something like these plants?

A. No, sir. There is something curious about their reproduction. The spores are very heavy and drop to the bottom, where they remain a long time without change. After a while, for months even, they will grow again. A curious thing is that there is a parasite which affects the spores; one year it was very abundant.

Q. Is the parasite, in its decay, inoffensive?

A. Oh, yes; it is a very small thing. A good thing about it is, that the parasite only attacks the spores; it does not attack the other parts of the plant. There are two parasites which are known to attack the species in question. One attacks the vegetative cells, and, of course, it is not of so much consequence; but this one we have attacks the spores themselves. The parasite which attacks the cell, but not the spores, has not yet been seen in this country.

Q. Are these particular *algæ* we suffer from annuals? Do they start, and grow, and decay in a year?

A. They are not annuals in one sense. You may have several crops in one year, and though they eventually sink to the bottom in the autumn, those that sink are not generally the ones that started in the spring. Each budding constitutes one generation, and there are several in one year.

MR. GREENOUGH. — May one live several years?

A. I should think not. They would bud so rapidly that long before the end of summer the original plants would be separated into a number of new plants.

DR. BLAKE. — From the taste of the water, and its features during the past summer, do you attribute its disagreeable character mainly to the decay of this plant?

A. During last summer I was away, and did not examine it so

frequently as usual. I only examined it very early in the season, and did not examine it in September or August.

Q. From what you know of the nature and distribution of the plants, would you be willing to say that this was the chief cause of the trouble in the water?

A. I should not say it was the main cause, except in warm weather. I should say it contributed to the trouble.

Q. Of course I have reference now to the disagreeable taste separate from the specific taste due to the decay of the *spongilla*.

A. I think that it is possibly due, in part, to the decay of the vegetation. I do not think it is due alone to the plants which produce the pig-pen odor. I should say that all decaying vegetation might affect the taste of the water.

Q. What decaying vegetation?

A. Large masses, not exactly leaves, because they decay so slowly, but succulent plants.

Q. And the other varieties of plants which would contribute to the disagreeable taste are also dependent upon the same causes for their growth?

A. The other plants, as I recollect, are nothing more than ordinary water plants, which would not be killed except by some external cause or contamination; for instance, if anything of an unhealthy nature was poured into the water, they would be killed; or, if the water was suddenly lowered, and they stuck up above the surface. In such cases the taste would come only from large quantities of the plants. A very large and sudden decay would cause the taste; but that would be easily recognized if it occurred. I do not think there is any taste that comes from the decay of autumn leaves, except, possibly, a little bitter taste, as they decay very slowly.

Q. But lowering the water and exposing the flats would fairly have a tendency to cause decay of vegetation?

A. Yes, sir. Any sudden decaying would have a tendency to produce trouble from these nostocs or scum plants which produce the pig-pen odor.

Mr. GREENOUGH. — I should like to ask you about the Public-Garden pond. Have you examined that this fall?

A. Not this fall. I have examined it very carefully before this. It always struck me that there was a great deal of humbug about it. I had been through the Garden and noticed the luxuriant vegetation, and had taken out for my own study, at Cambridge, grasses and plants which I wanted to examine. I read accounts in the papers about there being a sewer fungus in the pond, as if there was a great deal of danger from it, and as if a great deal of it was to be found in the pond. After one of the strongest newspaper notices came to my attention I examined the pond. I do not know what could be meant by the sewer fungus, except, possibly, one species not yet known in this country. The plants growing in that pond show that there could be by no possibility any sewer contamination. If there had been any sewer contamination the plants found there would be quite different from what they are. The plants were abundant, and indicated the pure quality of the water.

Plants are a pretty sure indication of the character of the water. Take some of the mud lands near the Providence R.R., not far from Roxbury. You can tell by the species of plants that grow in hollow places that the water is still brackish, although the hollows are not affected by the tide.

Q. How is it in the pond?

A. In the pond it is perfectly fresh. If there was sewer contamination to any extent these plants could not have grown there. The species of plants which grow there could not have grown there if there had been sewer contamination.

Q. Would *algæ* grow if there is any contamination?

A. No, sir; not the grass-green *algæ*, which are found in the pond. I brought in a pamphlet, this afternoon, about the Berlin trouble. I suppose that, if there is any species which can properly be called the sewer fungus, it must be the species mentioned in that book; but that does not grow in the Public-Garden pond. (The professor exhibited the book, and explained the illustrations of specimens of various plants.) This is a common form which grows in sewers, and, possibly, may pass under the general name of sewer fungus; but it is safe to say that very few people in America have heard of it. The plant is microscopic. The best notion you can get of it is from this last plate, which is multiplied by five hundred and forty diameters.

Q. What do you think would remedy the growth of plants in the Public-Garden pond?

A. There will always be plants there. The only way is to clean them out, if you have a bottom that you can scrape, and let the laborers go around at different seasons, and rake it so it will be clear for a certain time. No matter what you do, there will be some growth there.

Q. Even if the bottom is gravelly?

A. It will be less trouble with a gravelly bottom; but in a pond like that you cannot be sure that it will be free from weeds. I do not believe you can have a crystal lake there; it can be a respectably clean pond, and that is all. Some seasons it will look after itself, but in most seasons it will have to be scraped out. The same plants occur along the Serpentine in London. You will find the same plants along the banks there. But they indicate perfectly pure water.

Q. I suppose, if the bottom was covered with gravel, and the water changed frequently, you would have less trouble?

A. No, changing the water would not affect it at all. The plants that grow in the Public Garden pond are not at all like the ones with which you have trouble in your Water Works. Here is an illustration of the plants. The one in the Public Garden pond is larger than this, but it has the same kind of reproduction. These plants can be brought in at any time by the fresh water that comes into the pond.

Q. The water being stagnant would increase the quantity of vegetation?

A. We have different species, dependent upon the rapidity of water; they may be large plants in rapid water; where you have

stagnant water you will have other things; you will have more undesirable plants, which would be likely to belong to the nostoc family. There are no nostocs in the Public Garden; or merely traces of them.

Q. There was an appearance in the pond last summer as if green paint had been thrown into it. Would that produce this trouble?

A. If it died it would. If it grows up toward the edge, and the water falls off, it will die.

Q. The only advantage in letting off the water would be to clean it out and start afresh?

A. Yes, sir. Water which is perfectly clear to the eye contains germs of plants. When wash bottles, used in my laboratory, are filled, perfectly clear water is used; yet in a few weeks a green growth is found on the bottom of the bottles and they have to be cleaned with alcohol or some stronger reagent.

Dr. BLAKE.— Would any decided advantage follow from repeated raking of the storage-basins?

A. I should think it would. I should think it would be a benefit to Horn pond by taking off the plants. There is a practical difficulty in raking plants which are two or three feet high, but they should be cut down.

Q. Then you would advise the removal of the projecting substances?

A. Yes, those which come near the surface and above it.

Q. So, if the water was drawn down in summer by reason of requiring its use in the city, and there has been a large amount of the margin exposed, you think the removal of the loam and taking off of the matter would tend to lessen the amount of those plants?

A. Yes, I think so. They have practically tried removing the plants in Cambridge with a very good result. You may know that the *anacharis*, a plant like eel-grass, grows there. It has overrun all the water-courses there. It is in Fresh pond, and men are working all the time cleaning it up, and are constantly going around the pond from one place to another. It is thrown on the shore in great heaps; but the quality of the Cambridge water is good. I have been surprised to find that it has such good quality, because we have the *clathrocystis* and other scum plants there, and I am able to get enough specimens for my own class easily. But I am inclined to think it is owing to the cleaning out of the pond so often that the water is not bad.

Q. You are decidedly of opinion that a marked improvement would follow such a course in the storage-basins of Boston?

A. I think it would if the work were thoroughly done. In the case of the Public-Garden pond I am at a loss to know what the cause of the trouble can be. The sewer fungus — meaning the Berlin plant — I am satisfied does not exist. If that plant was there to any extent you could easily distinguish it. Cementing the bottom will not prevent a growth of plants. A gentleman in the vicinity of Boston had an artificial pond where the water was tolerably clear. He wanted to improve it, and cemented the whole

bottom ; but plants began to grow, and he was obliged to clean it at intervals. It was thoroughly cemented ; but these plants attach themselves to the bottom and grow there. If there is a deposit upon the bottom, it takes but very little earth to start the plants. The advantage of cementing is that you can scrape off what is on it.

MR. SHEPARD. — Do you think any advantage would come to the city from repeated observations made of the water for a long space of time. As to its temperature, its color, its taste, and the kind and quantity of life in it?

A. Yes, I think there would be. But that is a thing from which nothing directly of advantage could be *promised*. It is on the general principle that if you can know thoroughly the habits of these things, you will undoubtedly be able to know more about the means of removing them. But it is only in a general way. It would not do to promise any City Government, that, after so much has been spent for scientific investigation, such and such results would be reached.

Q. As an expert would you feel like recommending such a thing to be done?

A. As an expert I should like very much to see it done. You see the indefiniteness of the result which you are able to promise in dealing with the City Government. It is a thing for a corporation to do, by the employment of a scientific man connected with a university, where there is a laboratory for research. I do not see, however, why the persons employed on the Water Works — certainly those I am conversant with — are not competent to make valuable observations about temperature, and all other matters, except minute details of animal and vegetable life.

Q. Without speaking in the interest of science, but simply for the quality of water, and the improvement of the water supply, is it a thing that, in your opinion, ought to be done?

A. It is a matter where dollars and cents should come in. I do not think the city would certainly be able to save money by the operation. It might and it might not. It probably would ; but it is a matter of uncertainty, you see.

THE CHAIRMAN. — Would they not in that way come to find out some method of stopping this trouble?

A. I think very likely they would.

Q. That would be the object of the investigation, I suppose?

A. If the City Government appropriates the money for the investigation, of course it would have to extend over a certain number of years before anything definite could be done, and it would be in the hope that, in some way or other, the city would be able to save just so much money. But we could not absolutely promise it ; but the probability is there would be a gain.

MR. SHEPARD. — I understand that ; you speak very guardedly ; but yet it is something you think much good would be likely to follow from?

A. Yes ; but in order to secure good results it would have to continue, not for one year from now, but for a series of years, with constant observations.

Q. You noticed that my question related to repeated observations for several months. Perhaps several months was too short.

A. I do not think anything would be accomplished in less than three years.

Dr. BLAKE. — But after three years we should, under a competent investigator, learn the natural history of these plants and the sources of their growth, and that would lead us, of course, to fully understand the methods for their removal?

A. Yes, I think so. To illustrate: there is one point that has never been settled, and I suppose it would have to be settled: the way these plants have of sinking and rising. The engineer, Mr. Fteley, says the scum plants sink suddenly and rise again suddenly. I was inclined to think they did not sink, but I am now inclined to think they do; but why should they sink? To know why these things should go to the bottom when exposed, and why not go to the bottom when not exposed to certain atmospheric conditions, that is the point. Another example of the points to be settled is, how do these things live, and do they require an excess of organic matter?

Q. Inasmuch as you do not find them growing in the same state of luxuriousness in a water free from organic matter, I think it is fair to concede that that is essential to their growth?

A. Yes, sir; but one should show just why the organic matter is needed.

Mr. GREENOUGH. — Basins 2 and 3 were prepared practically in the same way, yet Basin No. 3 is filled with these things, and Basin No. 2 is not.

A. I do not know the position of Basin No. 2.

Mr. GREENOUGH. — It is on the other branch of the river, and there never have been any *algæ* seen there. Is not that true, Mr. Wightman?

Mr. WIGHTMAN. — Yes, sir, it has never been so as to be noticeable.

Prof. FARLOW. — When I have been to the basin it has been when *algæ* were there, and nobody has spoken about Basin No. 2.

Mr. GREENOUGH. — Basin No. 2 has a mud bottom and sides which are exposed in summer.

Prof. FARLOW. — What is its position in regard to Basin No. 3? Does Basin No. 3 lead into it?

Mr. GREENOUGH. — No; they are on two different branches of the river. Basin No. 1 is between them, the river comes down and Basin No. 1 is on the apex of the fork.

A. I have never been there to see the shape of the basin.

Q. The only difference is that there is a much larger flow of water through Basin No. 2.

A. That is a very important element. Is it not a deeper basin?

Q. I believe it is not so deep. But there are probably more flats exposed in Basin No. 3 than in No. 2.

A. It struck me that in Basin No. 3 there is a large amount of flats exposed. In the centre it is comparatively deep, but on the south side there is a large exposure of flats.

Mr. WIGHTMAN. — Basin No. 2 has 23 per cent. of shallow flow-

age and Basin No. 3 has 27 per cent. of water less than five feet deep. There is a very small difference in the amount of what we call shallow flowage.

Dr. BLAKE. — All the land is of the same general character as Basin No. 3?

Mr. WIGHTMAN. — Yes, the same.

Dr. BLAKE. — And the basin was not more thoroughly prepared?

Mr. WIGHTMAN. — Yes, sir.

Mr. SHEPARD. — This shows how hard it is to give an opinion until we get at the facts.

Prof. FARLOW. — Yes, it is much easier to get specimens than facts.

Mr. WIGHTMAN. — The shallows and places where these *algæ* will grow are quite as numerous in Basin No. 2 as they are in Basin No. 3.

Prof. FARLOW. — Basin No. 3 is bad; but it is nothing like as bad as stated by persons at Framingham. The stories told of injuries done are perfectly preposterous. The belief that special diseases have been produced by the growth of the germs in the Water Works is quite unwarranted.

Mr. GREENOUGH. — Do you know anything about the *spongilla*; or is not that in your line?

A. No, sir, I know the *spongilla* by sight, so that in examining the water I recognize it.

Dr. BLAKE. — I suppose that even so small a matter as the motion of the water would influence the growth of this *nostoc*?

A. Yes, sir.

Q. So if you have a strong current in Basin No. 2, and the water is changed more frequently, it would help to explain this difference in regard to *algæ* in the two basins?

A. Yes, sir; I also think that if Basin No. 2 is swept by the wind the water would not be so apt to be still, and the scum would disappear.

Mr. GREENOUGH. — The more quiet the water the more it would grow?

A. Yes, sir, the wind would break it up. If I want to get any specimens in Cambridge I have to take a still day. When the wind blows I cannot get any.

The Commission held a further conference with City Solicitor Bailey in regard to the laws relating to protection of water supplies, and adjourned subject to the call of the Chairman.

TWELFTH HEARING.

Boston, December 27, 1882.

The Commission met at 4 P.M. and held a conference with E. P. Nettleton in regard to the laws to prevent the pollution of water supplies.

Adjourned for one week.

THIRTEENTH HEARING.

WEDNESDAY, January 3, 1883.

The Commission met at 4 P.M., Alderman Caldwell, chairman, presiding.

STATEMENT OF MAJOR GEORGE W. DRESSER.

Mr. GREENOUGH. — Major, you were in the employ of the Croton Water Department of New York City for some time?

A. Yes, sir, for several years; I think about four years.

Q. In what capacity?

A. As assistant to the chief engineer.

Q. Are you familiar with the accumulation and storage of the waters of the Croton river?

A. Yes, sir.

Q. Will you show us on the map here where the Croton river runs and where the reservoirs are located?

[Witness explained the course of the Croton river from its source in Putnam county, N.Y., toward the Hudson river, and pointed out the locations, as near as possible, of the reservoirs for storage.]

A. About eight miles from the village of Sing-Sing there is a dam across the Croton river which forms what is known as Croton lake. From that the main aqueduct coming to New York City takes the water as far as High bridge. The river extends up into the eastern portion of the State into Putnam county, where it divides into several branches going up into the mountains. Across some of those branches have been built dams, to form what are known as the storage-reservoirs, the idea being to keep these reservoirs full, and when the water gets low in the river, so that the amount running to the Croton dam is not sufficient to supply the demands of the aqueduct, then these storage-reservoirs are opened to reinforce the river in a dry time. There are other dams, which have been projected and contemplated, which have not yet been built.

The CHAIRMAN. — Do those reservoirs empty right into the river?

A. Yes, sir. These reservoirs are formed by constructing dams across the valley, and they simply hold the water in reserve. As the water comes into them it overflows through the waste weirs. In the preparation of these reservoirs the ordinary method is to

simply clear the ground — what is known as grubbing and clearing, in a general way — and then let the water in and fill the basin. The ordinary practice, I think, is to fill the reservoir two or three times and then let the water go; and they consider it safe to hold it. But the water, after it leaves the storage-reservoir, runs in the open river until it gets to the Croton dam, twenty miles below, probably; and, of course, all that time it is being tumbled over and aerated, and it is very different from what it would be if taken from the reservoirs and turned into the system of distributing pipes. The Croton water-shed is four hundred square miles in area. Upon the supposition that you are able to save fifty per cent. of the water-fall, that would give them four hundred millions of gallons a day as the average available product from the water-shed. They are running into the city of New York to-day about one hundred millions of gallons, and when they talk about an inexhaustible supply, the fact is they are using about twenty-five per cent. of all the supply they can get from that source. There is very little trouble with the water in New York from taste or any bad smell, or anything of that kind. Occasionally we used to have trouble in the spring of the year, when the first warm days came on; what we call the cucumber taste, in the water; it always occurred first at points where there were dead ends in the pipes, for lack of circulation. This was remedied by opening the hydrants in the streets and blowing out the water and clearing the pipes, — getting rid of the stagnant water. Then we would not have any more trouble, as a general rule, until some time in the autumn, when we had warm days and cool days. But circulation is the great thing. The taking of the water from those reservoirs, and its tumbling over as it runs down the river, causes it to be aerated. In the same way they avail themselves of that same thing as far as possible in the supply in London, where they pump their water from the river to the reservoirs along the sides of the river, which are the filtering-basins. The water is made to come up into the air like a fountain, and rolls over and becomes oxygenated. Then it goes into the filtering-beds and is filtered and delivered from there into the city. These filtering-beds have to be constantly changed; you can see them any day as you go along on the railroads. They are emptied, and you will see men carrying out a lot of gravel, and another lot of men bringing in fresh gravel. This is necessary to get the water clear for use. The water is frequently examined by examiners, who analyze it regularly, — so many times in a quarter or a month; but they are quite successful in getting water that is reasonably pure and available for domestic use by simply filtering through gravel.

Mr. GREENOUGH. — Do you know anything, Major, about the New York State law in regard to protecting the purity of the water supply?

A. Yes, sir; there is a very strict law against flowing anything into the Croton river or reservoir that would be injurious to the water. We had some cases where we prosecuted people for letting dead horses and contaminating things get upon the banks of the stream. The department always had inspectors to watch for that.

Q. The law is very short and very strong?

A. Yes, I understand it is a very strict law. They have very little trouble with the water in New York so far as bad taste or smell or anything of that kind.

The CHAIRMAN. — Do you ever succeed in getting convictions for these offences?

A. Oh, yes. It is in the country, and the territory is very different from what a thickly populated district would be.

Q. Is it left to a sheriff's jury for trial, or how is the law enforced?

A. It comes before the ordinary county court, I believe.

Mr. GREENOUGH. — I saw a copy of the law the other day. The engineer of the Croton works told me that when there was a nuisance they went and smashed the thing up and let the parties sue the city of New York. They put the *onus provendi* on the other side.

Dr. BLAKE. — In the preparation of your basins you necessarily have a large quantity of shallow flowage?

A. Well, that depends upon the formation of the ground. At Boyd's corner there is comparatively little shallow flowage; the hills are quite steep, and are mostly occupied as sides for the reservoirs. In one reservoir on the eastern branch of the river there was more of shallow flowage than there is on the other.

Q. Are you familiar with the margins of the storage-basins?

A. I could not say I am familiar with the margins of the basins on the eastern branch, because they have been flooded since I left the department.

Q. In the basins with which you are familiar, have you noticed a rich growth of *algæ* during the hot weather along the margins?

A. No, I do not think they have had any trouble of that kind. We sometimes have a green scum formed right in the city reservoirs.

Q. Do you think the absence of this growth of *algæ* is due to the depth of the water which you have in your storage-reservoirs?

A. No, I do not know as it could be attributed to that entirely. I think there is a great benefit to the water from its having a long distance to flow in the natural bed of the river. I think that is the whole secret of it.

Q. You might get rid of a certain flavor and color by thoroughly oxygenating or aerating the water by means of the motion in its exposure to the air; would you expect to get rid of the taste of mineral water by that process?

A. Well, I could not say positively; but water certainly purifies itself rapidly as it runs along the river. There is no question about that.

Q. But would you expect water to get rid of decayed vegetable matter which it held in solution?

A. Certainly.

Q. What is the process?

A. By depositing it.

Q. But it cannot deposit it while in motion.

A. But the motion is always changing in velocity, and every change of velocity has a tendency to deposit whatever is held in suspension.

Q. Would it not be more likely, if perfectly quiet, to deposit anything it held in solution or suspension?

A. If it was not flowing at all?

Q. Yes.

A. Well, it might. But you take a running stream, and there is a frequent change in the velocity, and each check in velocity causes deposits. That has been shown in the experiments on the Mississippi river where the deposited matter is held in suspension.

Q. But when the water holds mud or clay, it is in suspension, and not in solution. Now, what we want to get at is this: whether it is your opinion that when water dissolves decayed vegetable matter — *algæ* or matter of any kind which it takes up in shallow flowage — that it would clear itself of that by this process of motion that you speak of?

A. I think it would if time enough was allowed.

Q. Do you know anything about the analyses of Croton water, how many parts of solid matter it contains?

A. I do not remember the figures, but I think the Croton water stands well up on the list for purity.

Q. Have any measures been taken of late years to protect it from contamination or pollution?

A. Nothing more than the ordinary measures I spoke of in the construction of the reservoirs.

Q. In the early history of the Croton Water Works complaints were very numerous and decided as to its bad quality?

A. Well, the analyses that have been made from time to time since do not seem to show it to be very bad water. It stands, I think, about fourth or fifth.

Q. In constructing these dams across the arms or tributaries of the river, of course you expect the water will overflow the banks of the tributaries, do you not?

A. Yes, sir.

Q. And flood the land on each side in the reservoir?

A. Yes, sir.

Q. Did you build dykes on each side of the stream to hold the water?

A. No, sir, we just flood the land on each side. I think the dam at Boyd's Corner is something like sixty to seventy feet high.

Q. That allows the water to flow upon the banks on each side for a great distance?

A. Yes, sir.

Q. Have you taken any special pains to prepare the land adjacent?

A. No, sir, nothing special except what we call grubbing and clearing, which I have already spoken of.

Q. Before New York City took the land now used for storage purposes was it used for agricultural purposes?

A. Yes, I think so. Part of it might have been woodland; but the entire Croton basin is agricultural land; a good deal of it used for grazing, and for milk farms.

Q. Does the city of New York own the land along the margins of these basins and control it to any extent?

A. No, sir, it has bought the land flowed ; that is all.

Q. So that people living in the neighborhood drain, as it were, into the basins, — do they?

A. The ordinary rainfall comes down on the hills, and comes in the streams into the basins. That is the way the storage-basins are filled, — from the streams.

Q. Do you take any measures to prevent drainage from the houses into the reservoirs?

A. Oh, no.

Q. And from the dairies and manufactories?

A. Well, there are no manufactories up there, I believe. It is an agricultural country. The ordinary drainage from a farm-house would be purified after passing through the soil.

Q. Are there any rivulets or brooks that run into these storage-basins that are subject to such contamination?

A. I do not think there are any. I do not know of any. It is a sparsely settled country.

Q. So, under the circumstances, the amount of house-drainage is small in quantity?

A. Oh, anything of that kind would be insignificant when compared to the amount of water. If there was anything of that kind, the city would acquire it and abolish it.

Q. Are you familiar with the source of the Boston water supply?

A. Not specially. I have passed by Lake Cochituate, at Framingham, a great many times in the course of my life, but I know nothing about the Sudbury-river supply, and never examined it.

Q. If you had evidence that the sewage of a part of a town was running into your water supply, do you think the law of New York would be effective in preventing it?

A. Yes, sir.

Q. And you know of such action having been successfully taken?

A. No, I do not think there has been a case of that kind where the sewage from a town contaminated the water. If a farmer had a horse die, and he carted him out on the banks of the river, the officers of the Water Works would make him remove it and take it away, because, although the actual damage from it would be very small, still, if anybody should come along and see the dead horse floating in the Croton lake, it would make a great hue-and-cry. It is very easy to excite the public mind in regard to the water supply.

Q. Then you, as an engineer, are satisfied that the city of New York takes care to protect its water supply properly?

A. Yes, sir. It is the business of the Croton Department to furnish a supply of “pure and wholesome water.”

Q. And you have been aided by the law to accomplish that object?

A. Yes, sir. The law authorizing the construction of the works contained a provision, — it was passed at that time or soon after, — giving the authorities power to protect this stream from contamination. Such a provision is absolutely necessary.

Q. As an engineer, what measures do you consider necessary in the preparation of storage-basins?

A. That would depend altogether upon the circumstances of

each particular case. If your storage-basin was in a thickly populated district, why, of course you must prevent anything but pure water, which you supply to people, from coming into it; you must cut off all contaminating sources, and you want to have your basins arranged in such a way that if it is necessary they can be cleaned from time to time. The reservoir at Forty-second street, in New York, is what is known as a disturbing reservoir, and it is also to a certain extent a settling basin, because the water comes into it and passes out. It is built of masonry entirely, and its sides are of masonry. I saw one half of it emptied once for the purpose of making some repairs. I think it had been in use twenty years, and I do not think there were six inches of mud in the water.

Q. You are in favor, then, of periodical cleaning of the basins?

A. I think the basins within a city should be. For instance, your storage-basins may be constructed in such a way that they are divided by masonry wall, and you have practically two basins, and you can, if necessary, from time to time, exhaust one, and see that it is perfectly clean, and there is no trouble about it. Then, too, that is a good prevention against accident. You do not have all your eggs in one basket, to use a popular phrase. A large reservoir may be divided by a central wall which comes to within five or six feet of the top, so that, if there is a break on one side, you are not deprived entirely of a supply of water.

Q. You think a city should have a sufficiently large number of storage-basins to allow periodical cleaning?

A. Unquestionably.

Q. Do you consider that periodical cleaning of the basins is absolutely essential to the purity of the water?

A. I do not know as it would be absolutely essential.

Q. Well, beneficial?

A. Yes, sir. When you say absolutely essential, that is a strong expression.

Q. If you found in those storage-basins that the proportion of solid matter was above what chemists consider good for health, you would consider it necessary to remove any decaying vegetable matter?

A. Yes, sir. I believe there is great virtue in the running of water in open streams. Some experiments were made recently, — I do not know whether you saw them or not, — by examinations of the water in the river Seine, and the effect of sewage going through there. The result of those investigations certainly went to prove that water purifies itself very rapidly.

Dr. BLAKE. — I want to ask if you agree with the following (reading from *Boston Medical and Surgical Journal*, Dec. 21, 1882, Pro. Suff. Dist. Med. Soc., of Oct. 28, 1882) : —

Dr. A. N. Blodgett said that he could testify to the filthy condition of the basins, as on two occasions he had been in the neighborhood of Farm pond when the water had been drawn off, and they had the appearance of flats at low tide filled with decaying vegetable material, like fresh-water swamps, and certainly would lead one to suppose that they contained everything considered injurious to health. The area exposed was quite large, and the water must be distributed daily in the city.

If you had a condition like that in the Croton water supply, you would consider it necessary to clean the basin, would you not?

A. That would depend upon where that basin was situated. If it was at the head water, up in the hills, where the water had some twenty or thirty miles to run before it came into the Croton lake, I do not think it would be so important a matter.

Q. But if that water entered directly into the conduit?

A. It would certainly be an advantage to the water if that basin was kept perfectly pure and clean; there is no doubt about that.

Q. And if physicians told you they thought disease had followed the use of that water, that would emphasize your opinion as to the necessity of cleaning the basin, would it not?

A. I do not think it would.

Q. Well, as an engineer, you would be satisfied that the conditions called for cleaning?

A. Yes. But physicians are very much like other professional men; they are apt to have special hobbies, just as engineers have, and feel that they must have a cause for something.

Q. But if physicians found by chemical analysis that the water contained 30 to 45 or 50 or 70 parts of solid matter, that would corroborate their view?

A. Yes, sir; I think that in cases where the supply is a limited one you can very often trace the origin of the disease.

Q. The point of this testimony bears strongly upon the contamination of Lake Cochituate from Pegan brook, where the sewage from two thousand inhabitants runs into our water supply.

A. And it ought to be shut out.

Q. The law in our State requires that we shall be able to demonstrate the impurity of the water at the point where the city takes it, which at present is chemically impossible; nevertheless, all scientific men are pretty well agreed that the danger exists, although we may be unable to demonstrate the fact by conclusive evidence.

A. There is no question but there must be danger from the influx of a stream like the one you speak of.

Q. We feel that the water containing the sewage of a town conveys disease, and it is simply a chance of those disease germs finding their proper source in this contamination.

A. There is no question but it will contaminate your water, and this will increase with the increase of population on the stream; but by going a little further up the stream cannot you get evidence of pollution?

Q. There is no difficulty about it. We have seen the drainage from a large hotel emptying into it.

A. I mean by analysis.

Q. The stream is filthy to look at.

A. Why cannot you prove it?

Mr. GREENOUGH. — We can prove it goes into the lake, but we cannot prove by analysis that the water is any worse where the city takes it at the other end of the lake than it would be if this contamination did not flow into the lake.

A. But the city must be considered as taking the water of that

special stream at the point where it enters the lake, and your law ought to enable you to deal with it at that point in a most summary manner. The law cannot be made too stringent for the protection of a city's water supply.

Adjourned to Wednesday, January 10, at 4 P.M.

FOURTEENTH HEARING.

WEDNESDAY, January 10, 1883.

The Commission met at 4 P.M. All present.

STATEMENT OF JOSEPH P. DAVIS, EX-CITY ENGINEER OF THE CITY OF BOSTON.

The CHAIRMAN. — Mr. Davis, the Commission want to know what are your ideas in regard to the method of constructing our reservoirs and the pollution of our water supply. You are pretty well acquainted with the situation of the Sudbury river and all the other streams. Please give us your ideas, in a general way, and the Commission will ask any questions which occur to the members.

A. Since I have left Boston you have had some special trouble with the water, which, of course, I know nothing about, except what I have seen in print. I refer to the cucumber taste which Prof. Remsen discovered the cause of. I have understood an attempt has been made to connect that with the soil in the basins; but I do not think there is any connection between them. That is an impurity which occurs in all surface waters, and in natural lakes to some extent. Even at Poughkeepsie, which takes its supply from the Hudson river, when the temperature of the water gets up to about 70, they have similar trouble. As you will see by an extract from a Baltimore paper, which I just handed to Mr. Greenough, they have recently had similar trouble there. I never have seen the Baltimore water works; but I understand that they take water from what is known as the Gunpowder river, — that they put a dam across it, and brought the water into the city in a way very similar to that in which the Sudbury-river water is brought into Boston. But the ground which is overflowed to form the storage-basin is not farming land, — it is almost all rock, — and yet they have, apparently, the same trouble which you have here.

Mr. GREENOUGH. — You were the engineer of the city at the time the three basins on the Sudbury river were constructed?

A. Yes, sir.

Q. How far, in your judgment, should the Water Board have gone beyond what they did in taking out the soil from those basins?

A. I will tell you about that, as far as I can remember. There was no definite action taken by the Water Board. To have taken the soil out of the basins entirely — not including the muck, but simply that which you would call soil — would have caused a very large expense. It would probably have cost six or seven hun-

dred dollars an acre, and there are between five and six hundred acres in that territory. That never was contemplated. If you will refer to the report of 1873, you will see that the question was discussed there. In the original estimate there was an allowance of \$75,000, if I remember rightly, for taking soil out of the basins, only \$15,000 or \$20,000 of which was spent. This was not due to opposition of the Water Board. If I had thought it was necessary to have had it spent, I think the Water Board would have given the necessary authority. That which we wanted specially to remove was in the upper part of Basin No. 2, which is the one you have had the least trouble with. Basin 3 was considered to be the best basin by far,—first, because the water of Stony Brook was very pure and less polluted in every way; and, second, because it was very much deeper, and had bold shores,—and yet that is the one in which there has been the most trouble. One of the reasons for not spending it was this: If you remember, after the supply was taken, there was a delay of two years in discussion in the city government before we were allowed to go on. The city got into a very critical condition as to its supply before the City Council finally passed the order authorizing the Water Board to take the water of the river and complete the works, which had been begun two years before. After we were authorized to go on, we had to get the dams built as soon as possible. The foundations were built by days' labor, and we employed from three hundred to four hundred men on them. I should think that was as many men as could be well handled at that place. To have undertaken to strip the soil from those basins with anything like thoroughness would have required the employment of a very large body of men, which could not have been very well handled there while the other work was in progress. We made some excavations in the upper part of Basin 1 to ascertain the cost and see what the general effect would be; but, after viewing them, I concluded, all things considered, it would not be a judicious expenditure of money. I refer now to the time when the basins were under construction. Later (in 1879), when soil was wanted for the Back Bay park, I urged the removal of portions of the soil from the basins.

Q. In other words, the Water Board authorized you to go ahead and expend the \$75,000 appropriated for removing the loam; and so far as any responsibility remains for not taking out the loam, that belongs to you and not to the Water Board?

A. I do not think that the Water Board authorized me to spend the money; but would have done so if requested. In my judgment, at that time, the expenditure would not have been judicious. Unless you were going to spend an enormous sum there, in other words, take out *all* the soil, I thought it would not be of much use to spend \$75,000. I do not want you to understand that an appropriation was made for that purpose. The City Government made an appropriation each year without stating exactly for what purpose it was to be spent, and in the original estimate was \$75,000 for removing this soil.

Mr. SHEPARD. — Suppose you had not felt at that time there was great need of water in the city, and you had had as much time

as you needed, would you have spent any part of the money in removing the soil?

A. I should not have spent much. There are many places in the basins which could be cleaned out. I supposed that the Water Board would, and presume that they now have a force of men up there cleaning, when the basins are drawn down, the shallow places where the waves agitate the soil and where plants would be likely to grow. Instead of removing the soil from the upper part of Basin 2, we built a dam, so that the water would not be drawn down there so low as in other parts of the basin.

Mr. GREENOUGH. — You consider the water in it not so good as in Basin 3?

A. It was so thought then, — that Basin 2 would not be so good as Basin 3.

Q. If you had removed the loam from about the shores of these basins, it would simply have been to prevent the growth of these plants when the water was drawn down?

A. Yes; and prevent the waves from stirring it up. When the soil is once mixed with the water it takes a long while to settle out.

Q. Did you not remove the loam from the banks at all?

A. No, at least to no great extent. It was generally pasture land on the shores, along the water-line; the deep soil was in the bottom of the valley.

Q. So what you did was practically to build the dam, cut out the trees, and turn the water in?

A. That is practically it. We cleaned the shore line to some extent.

Q. Suppose you were going to build those basins over again, with the experience we have had, what would you do?

A. If you throw the park question out entirely, and say only that you wanted the soil removed on account of the water, not being aware that its presence produces any serious effects, I should not take it out. I reported strongly in favor of taking the soil out, as it was needed for park purposes; but, without that, I should not take it out.

Q. None of it?

A. Except in the shallow places of which I have spoken.

Q. Did you not consider that the soil in the shallow places was likely to damage the water?

A. Yes, sir; but I did not think it worth while to spend two or three hundred thousand dollars to take it out. I would like to call your attention to the original report upon that very question.

Mr. BRADLEE. — I suppose that at that time you did not imagine the water would be required to be used so quick?

A. Yes; that was the point. That is where the whole thing has turned. As you will see in the report, it was supposed that the Sudbury-river water would be used only for a certain number of months in each year, — that there would be some attempt on the part of the city to restrain the use of water. In the first place we were not allowed to commence building the works until something like two years from the time we expected to commence them.

Q. If you had expected to use the water in those basins at once, would you have ordered them stripped?

A. It is difficult to say at this time what I would have done some years ago. I might have stripped the soil down to seven or eight feet below the high-water line had I known that the full capacity of the basins would be required at the outset. It has been necessary to draw the water level down several feet each summer, thus exposing to the air and sun large areas of the unstripped surfaces. Speaking of these basins, the original report says (reading City Doc. 29, of 1873, pp. 34 and 35):—

To secure the estimated supply of forty million gallons per day, seven new storage reservoirs or basins are required, as has been before demonstrated. It will be many years before such a supply is needed. For a while the Sudbury water will be used for short periods in each year only, to tide over the times when there is a deficiency or some temporary impurity in the Cochituate supply.

It is proposed to build now the three lower basins, marked I., II., and III., on the plan, and leave the others to be constructed as they shall be wanted. These three basins have, in connection with Farm Pond, a storage capacity of 273,000,000 cubic feet, and are adequate for a daily supply of about twenty million gallons. So large a capacity is not needed at first, but the position of the reservoirs is such as to require that they all be constructed at one time, and, moreover, they are necessary for the proper *purification* of the water, no matter how small may be the supply used.

The Whitehall reservoir is already built, and would require but a small expenditure for work to place it in a serviceable condition. Whether the city should now take possession of it, or wait till its use becomes indispensable, is a question that involves a variety of points, some of which do not come within the engineer's province to decide.

On account of the value of the land flowed, and other private interests destroyed, the character and magnitude of the dams required, and the cost of raising and protecting town-roads and railroads, the cost of Basins Nos. I., II., and III., will be comparatively large. Basin II. flows out two mill privileges of considerable value. No. III. includes within its boundary an extensive swamp, now covered with a heavy growth of wood, and they all flow large tracts of meadow-land, supporting a rich vegetation which it is desirable to have removed by grubbing and excavation, as it will otherwise have to be gotten rid of by decomposition. The cost of this class of work will, however, be so great as to limit its application to small areas where the most benefit will be produced, such as that in the upper part of Basin No. II. The vegetable matter upon other tracts must await the slower processes of chemical change, in undergoing which it will be apt, at first (especially in the summer months), to deteriorate the water.

This action will in part or wholly cease after a while, and the basins will slowly assume the character of natural ponds and lakes. As it is desirable that such conditions shall prevail before the city is largely dependent upon the Sudbury water for its supply, it is important that the construction of the basins be commenced at an early day. It will probably require three seasons, at the best, to put them in readiness for use.

MR. SHEPARD. — How long, in your opinion, does it require before the basins will be in the condition of natural ponds?

A. What was meant by that expression was, that the shore lines, the parts that form the slopes of the shores, would become clean gravel. That is caused by the beating of the waves on the shore and washing the soil down the slopes. I have not been out on the basins for three years or more; but I should think that that action must have already taken place to a great extent. I suppose Mr. Wightman knows about that.

Mr. WIGHTMAN. — Where the slope is steep it takes place in about two years; but where it is flat it takes longer. Basin 2 is practically in that condition now.

Mr. DAVIS. — The whole theory at that time, when this report was made, was that the city had, in Lake Cochituate, almost the quantity of water it needed, and that we had plenty of time to build the Sudbury works and let nature take care of this question of soil. If I had known to what extent those basins were to be used, it is possible that I would have had the slopes stripped of the soil. But, to prevent the water from taking up organic matter in the basins, the soil should be taken from the valley bottom itself. In other words, it meant railroad work, — laying tracks and putting on cars and engines. We could not have got horses and carts enough to get it out in any reasonable time. It involved the doing of this work besides the building of the dams, and would have delayed the work upon them.

Mr. GREENOUGH. — You did not think it of enough importance to go on with?

A. No, sir; and I do not now think that the city of Boston would be justified in spending the amount of money that would be required to take the bottom soil out, except in so far as it is needed for use on the parks. It could be better expended in other directions.

Mr. SHEPARD. — Then it is the expense that you look at?

A. Yes, sir. I do not think the quality of your water would be enough improved to pay for that expense.

Mr. GREENOUGH. — Supposing that experiments showed that the water which came into those basins took up a very considerable quantity of vegetable matter and held it in solution, how would you expect to avoid that except by taking the soil from your basins, so as to render the water not deleterious to health?

A. I do not know that experiments have proved your last proposition.

Q. Well, all the chemical evidence we have had here has been to that effect. All the medical societies here in Boston have memorialized us to the effect that the water is not in a good condition for health.

A. I do not know any facts to show that the presence of the soil is deleterious to health. If it is dangerous to health, the expenditure would be justified. Deleterious has various shades of meaning. If it is dangerous to health you are justified in spending any amount of money to take it out. But I do not know of any evidence that will go to prove that.

Dr. BLAKE. — If you found the water inside the dam containing a very much larger number of parts of solid matter in solution than is good for the health of those who drink it, and that it would be likely to affect health in hot weather, what would you say to that? If medical testimony concurred in the expression of that opinion, — that the using of water containing a large amount of solid matter in hot weather, at a time when such diseases as diarrhœa, irritation of the bowels, etc., prevailed in the city — what would you say to that?

A. Will you allow me to ask a question before I answer that?

Q. Certainly.

A. I think I know of the series of experiments you refer to, and you will see that in the 1873 report I stated that the water in the basins is going to take up a great deal of organic matter. But in order to arrive at a solution of the question I should want to know what is the quality of the water when it enters the pipes here in the city. It is turned into a conduit from the river, thence taken to Chestnut-Hill reservoir or the Brookline reservoir, and there allowed to settle. The comparison should be between the water before it is allowed to enter those basins and as it is delivered in the city.

Q. But in passing it is not exposed to the air.

A. It is not exposed to the sunlight, but is exposed to the air. The conduit is not run more than half full.

Dr. BLAKE. — But it is not oxygenated, and consequently it is deprived of the beneficial effect of close communication with the air.

Mr. GREENOUGH. — Those experiments made by Prof. Wood were with water taken from the basins and from faucets here in the city, were they not?

Mr. DAVIS. — There were some analyses of that kind made at the time when we were turning the water into Lake Cochituate in 1872. The water of Sudbury river showed a quite large proportion of organic matter, and the water of Lake Cochituate was shown to be in a much purer condition. (See City Doc. No. 29, 1873, page 32.) I have no doubt it cannot be otherwise than that water poured into those basins would take up a good deal of organic matter.

Dr. BLAKE. — By excavating the basins, would you not avoid that additional amount of organic matter?

A. Yes, sir.

Q. Well, do you not consider that the avoidance of a source of pollution of that kind would justify a reasonable expense, particularly where you have this annual clamor in hot weather as to the disagreeable condition of the water?

A. Well, at that time we had no such question to decide. The clamor had not come, and we did not anticipate anything like the trouble that has occurred. We did not expect this growth of *algæ* or this cucumber taste. I do not think the soil has anything whatever to do with those two things. But this dark color, which chemical analysis shows to be due to organic matter, comes largely from the soil and vegetation in those basins; there is no doubt about that. Now, as I have said, I have not seen any evidence that that has any serious effect upon health. I have no doubt that, when the water had that cucumber taste, it had an effect upon health through the imagination, if in no other way. But I never supposed the soil had anything to do with it.

Q. We did not suppose the soil had anything to do with that; but we supposed it had something to do with the nauseous taste last fall, which has caused the chief outcry and clamor against the condition of the water.

A. Well, I was on here once or twice during the summer, and a

number of times after the first of September, and I did not see, and do not now see, that there is much difference between your water and the Croton, except that it has a somewhat deeper color.

Mr. GREENOUGH. — In other words, Mr. Davis, your position is, that, although it might be a good thing to take out that loam, it would cost so much the city would not get the worth of the expenditure?

A. Yes, that is about it; and I think you would not find much difference in the water after it was done, unless you take *all* the soil out. You would find some difference; but you would not have pure water, — what people are asking for.

Q. Why should we not have pure water, except the discoloration?

A. That is the point. It is the color, as I understand it, that people are objecting to.

Q. We find by analysis that the water is whiter after staying in the basins, although it contains more matter in solution?

A. That would be a new feature to me, and something I never knew before. We supposed the vegetable matter gave it the color, and I do not know how, when the color decreases, the organic matter taken up in the basins can increase.

Dr. BLAKE. — Are you so liable to have *algæ* and water-plants growing upon the margins of a flowing river as upon the banks of a stagnant pool with low margins?

A. I want to separate *algæ* from ordinary water-plants. Water-plants will grow upon the borders of a river or a pond of still water; but nobody knows whether soil is necessary or favorable to the growth of *algæ* or not.

Q. The testimony we have had is that the three conditions necessary to the growth of *algæ* are shallow flowage, heat, and organic vegetable matter. We have those conditions?

A. Yes, sir.

Q. And consequently a higher temperature of water?

A. There is much less trouble in flowing water than in basins. But to answer your question in a general way: This growth of *algæ* occurs in lakes in the upper part of Maine, where people seldom go except for fishing purposes; it occurs, I am told, in Lake Winnepesaukee. Where there is shallow flowage the general temperature must be higher than where there is none. But those lakes where the *algæ* grow often have clear, pebbly bottoms.

Q. And with shallow margins? It occurs upon the margins and is then diffused by the action of the wind. Why do you not have *algæ* growing out in Lake Wenham where there is a great depth of water?

A. I do not know whether they have it there or not.

Q. I do not think they do to the same extent. In the preparation of new basins would you take any greater precautions as to cleaning of the bottoms by removing the soil and deepening the margins?

A. I think I should, with the present light, knowing that the water surface was to be drawn down several feet each year in hot weather.

Mr. SHEPARD. — To what extent?

A. I could not tell you unless I went out on the land and looked it over. In a general way I would say I would clear away soil and increase the depth where there is not seven feet of depth at high water.

Q. Would you advise that that be done now?

A. I do not think you can do it to any extent, except in Basin No. 1.

Q. Because we cannot afford to lose the supply?

A. Yes, sir.

Q. Is that the only reason?

A. That is the chief reason. You cannot put the basins out of use long enough to do it.

Mr. GREENOUGH. — If one basin was down in the summer and comparatively empty, you might take out some soil then?

A. Yes, sir; you could do it in a very small way. I want to impress upon you that it is an enormous job, if you undertake to take out the soil generally, and it involves an enormous amount of work. You cannot hire carts enough to do it, but you have got to lay railroad tracks, and you have got to dispose of your soil. I suppose that the Water Board have, or if not they should have, a body of men through the summer taking out this deposit when the water is low in the basins.

Mr. SHEPARD. — Have the Water Board proceeded in that matter, Mr. Wightman?

Mr. WIGHTMAN. — Yes, sir; they have done considerable of it. When this Commission first went up there to look at those basins, you saw some men at Basin 2.

Mr. SHEPARD. — I do not recollect.

Mr. WIGHTMAN. — They have been at it all summer. They have done a great deal at it this summer. There are two or three coves that were cut off by the road at Ashland, and all of that has been dug out. They kept on digging until the water drove them out.

Mr. SHEPARD. — In preparing this new basin, where you have removed considerable of this soil, have you found any difficulty in disposing of it?

Mr. WIGHTMAN. — I have done just what Mr. Davis said would have to be done. I have spent fourteen thousand dollars in laying a branch track in there to take the loam out of the basins. I have taken it from the sides of the basins convenient to the track. We shall take it out and bring it to Boston, or let it remain there until it is wanted somewhere in the city.

Mr. SHEPARD. — Have you estimated the expense of taking out the loam in Basin 4?

Mr. WIGHTMAN. — I could not tell you what it would cost to take it out of the basin and simply deposit it just outside of the limits of the basin; but to take it out of the basin and get it to Boston, it costs approximately about \$1.50 a cubic yard. It would cost the park department about \$1.00 and the Water Board about 50 cents a cubic yard.

Mr. GREENOUGH. — How much are you calculating to take out?

Mr. WIGHTMAN. — About 200,000 yards. It will depend upon how much they want for Commonwealth avenue, and whether they will go on with the Muddy-river Improvement. They want about 100,000 yards for the Bay Bay park, and 50,000 yards on Commonwealth avenue, and if the Muddy-river Improvement goes on they will want about as much more.

Mr. SHEPARD. — Suppose this was not needed by the Park Commissioners at all, and you had no way of disposing of it with advantage to the city, would you remove the loam simply as a question affecting the water in the basin?

A. I am simply taking it out a little deeper than Mr. Davis mentions, down to about twelve feet from the high-water line. That is all I should do, and that is all I propose to do.

Mr. SHEPARD. — You think that advisable to-day, looking at the water supply only?

A. Yes, sir. It is a question of judgment solely, as regards that depth. This is a very narrow and deep basin, and of course the fluctuations will be greater. I am not taking it out of the shallow basins more than seven feet.

Dr. BLAKE. — Do you know, Mr. Davis, whether any other cities with a water supply like ours have periodical cleansing of their storage-basins?

Mr. DAVIS. — I never knew it to be done.

Dr. BLAKE. — I think it is done by the city of New York. Did you not so understand, Mr. Greenough?

Mr. GREENOUGH. — I understood Mr. Dresser to say the reservoirs in the city were cleaned; but not the reservoirs upon the Croton.

Mr. DAVIS. — They have never, I believe, cleaned out the new reservoir in the park.

Mr. GREENOUGH. — They cleaned out the Forty-second-street reservoir.

Mr. DAVIS. — It has been the custom to clean out the Brookline reservoir here, I think.

Mr. BRADLEE. — I think it had not been cleaned out for thirty years, when it was cleaned the last time.

Mr. DAVIS. — The East Boston reservoir was cleaned out.

Mr. WIGHTMAN. — And it might be said right here that not enough deposit was obtained to pay for cleaning it out. The deposit was very slight.

Mr. DAVIS. — New Bedford built their works in 1867-8, if I remember rightly. They flowed a swampy territory by a dam not more than seven or eight feet high. When the water first went into the city the color was very deep. The people objected to it because they were used to clear water from wells. But there has been no soil taken out that I am aware of, and I never heard that it produced any ill effect upon health. I have opened this book to a point where it gives the testimony taken by commissioners in London, appointed to get at the question of impurity of water. The commission, in their report, say (reading from pages 30-31, Doc. 29, 1873) : —

The organic compounds dissolved in water appear to be of very instable constitution, and to be very easily decomposed, the great agent in this decomposition being oxygen, and the process being considerably hastened by the motion of the water. Now, as such waters (river waters) always contain naturally much air dissolved in them, the decomposing agent is ready at hand to exert its influence the moment the matter is received into the water, in addition to which motion causes a further action by exposure to the atmosphere.

The effect of the action of oxygen on these matters, when complete, is to break them up, to destroy all their peculiar organic constitution, and to rearrange their elements into permanent inorganic forms, innocuous, and free from any deleterious quality.

It does not follow that all organic matter in water is prejudicial. Almost all our drinks, other than water, owe their distinctive qualities to the varieties of their organic contents.

Dr. Lyon Playfair, Professor of Chemistry in the University of Edinburgh, in his testimony before the commissioners, states:—

The effect of organic matter in the water depends very much upon the character of that organic matter. If it be a mere vegetable matter, such as comes from a peaty district, even if the water is originally of a pale sherry color, on being exposed to the air in reservoirs, or in canals leading from one reservoir to another, the vegetable matter gets acted upon by the air, and becomes insoluble, and is chiefly deposited; and what remains has no influence upon health.

Mr. GREENOUGH. — Are you familiar with the water supplies of any large European cities, Mr. Davis?

A. Well, I know something about them. For instance, I saw the Berlin supply, where the water is filtered. The water is pumped from the river Spree, filtered and then pumped into the city. The Paris supply comes from various sources. About two-thirds of it is used for street purposes, and only one-third is carried into the buildings for domestic purposes. They keep the two supplies distinct, and have two distinct sets of pipes running throughout the city. I will say here in reference to this question, that in this country we have got to very much restrict the use of water, which is what the superintendents of water works have been aiming at for the last fifteen or twenty years, without being able to obtain sufficient authority; or else we have got to bring in a special supply for drinking and culinary use. With the drainage area required to supply Boston, it is impossible to get a supply free from pollution, and it is impracticable in this climate to purify water by filtration in such large quantities as are needed for general use. I suppose that Lake Cochituate could be defended against pollution, and if its water were kept separate you could deliver sufficient from it for purely domestic purposes. It is possible that you could improve the Sudbury-river water by blowing air through it. I understand the city proposes to build a conduit across Farm pond, and it might be so arranged that air could be blown through it, so as to let the oxygen attack it in all parts. I have no doubt it would very much improve the quality of the water. I did not know but you might want to ask me something in regard to special cases of sewage pollution, as at Pegan brook and South Framingham. Within a few days my attention has been called to what is known as the Farquhar filter. There is one on exhibition in New York, and I went down last Saturday to see it in operation, so as to be able to say something about it. I have

one of the reports of the inventor, which will give the information in detail.

Q. What is its peculiarity?

A. It is simply keeping a fresh surface at all times, and filtering under pressure. Filters usually choke up so quickly that you get but a small result after a few hours' filtration.

Mr. SHEPARD. — Is this filter to be used on faucets?

A. No, sir; I presume it was gotten up originally for manufacturing purposes, to be used in breweries, sugar refineries, etc., but they propose to use it for filtering the water supplies of towns. Here is the report of an experiment they made in filtering the water supplied to Paris, mixed with the mud and sewage of the city, till it had 500 milligrammes of suspended matter in each litre of water.

Mr. GREENOUGH. — You do not suppose any such filter could be used in our water supply, do you?

A. I bring this to your attention as a possible means of filtering the portion of the supply which is subject to sewage pollution, and not to filter all that comes into the city.

Q. Do you think that would be possible?

A. Oh, yes.

Mr. SHEPARD. — At what expense?

A. I cannot answer that.

Q. Is it a very large expense?

A. Here is a cut of the machine. The inventor says that a machine ten feet in diameter would filter a million United States gallons a day of such water as is ordinarily supplied to cities. Of course it depends upon the quality of the water as to how much would go through it. The water would have to be pumped up; the filtering is under pressure. I do not bring that before you to recommend it, for I know nothing about it. My attention was called to it only a short time ago, and it was only because I knew that you wanted me to come before you that I looked at it at all. I saw a little model of it at work. Ink would look almost clear alongside of the stuff they put into it, and it came out perfectly limpid. They said it was such water as is found at the bottoms of coal mines, water mixed with bituminous matter and clay.

Mr. GREENOUGH. — This would not take out the dangerous matter held in solution?

A. It takes out organic matter, according to that French report. It did not take out the chlorine. I merely draw the machine to the attention of the Commission; and if they want to investigate the matter further they will have to do so, for I have not investigated it enough to recommend it.

Dr. BLAKE. — Have you any suggestions to make as to methods for purifying our water?

A. Nothing that I know of, further than what I have said. I think the question of blowing air through it is worth study. I should not dare to recommend it with any knowledge I have on the subject now, but I think it would be worth while to experiment pretty thoroughly about it.

Q. You would recommend a larger number of supply and storage

basins so as to allow the water to remain in them, and so as to clean out one or more if necessary?

A. Yes; that is a part of the original plan, and it is very desirable. With the present consumption there should be much greater storage capacity at the source of supply.

Mr. GREENOUGH. — Do you consider that more desirable than a reduction of the consumption?

A. I consider that the most crying want of most of our water supplies is the reduction of the consumption of water, because there are many attendant evils outside of this question that you are considering now. The 1873 report on the water supply is based upon the city using 60 gallons a day per capita, and you are using 90 or more. At that rate you will want another source of supply before many years.

Q. Any supply obtained as ours is, during the hot weather is liable to be affected by the sun?

A. Yes, sir; all surface waters are.

Q. So all you can do is to cut off that portion which happens to be pure?

A. Yes, sir.

Q. And you can cut off that by increasing the supply or decreasing the consumption?

A. Yes, sir.

Q. And if you decrease your consumption you are much more able to handle your water, and keep it pure?

A. Yes, sir.

Mr. SHEPARD. — In speaking of different supplies, one for domestic purposes and the other for streets, I suppose that would mean for cleaning the streets, the fire department, and all that sort of thing; and you would have but one supply to go into the houses?

A. I should have two supplies for the houses.

Q. Then how are you going to compel the people to separate them? How are you going to prevent them from using the pure water for washing, etc.?

A. I would not allow them to connect the pure water with the water-closets and bath-tubs, where a large part of the waste occurs. The pure supply would be connected with a faucet, where it could be wasted to a certain extent; but I would not allow more than one faucet to a floor. I do not think that in Paris they carry both supplies into the houses; but they use enormous quantities of water for fountains and in cleaning the streets. Early in the morning they will let the water run into the gutters and wash the street cleanings into the sewers. The total supply, including this two-thirds which is used for street purposes, is very much less per inhabitant than the Boston supply. That which is used for street purposes comes from the canal de l'Oureq, and from the Seine. The supply for the houses comes from three or four different sources. The one I saw comes, if I remember correctly, about 90 miles, and is collected from some little springs. It is quite hard water, and our people would object to it on that account; but it is perfectly pure so far as concerns organic matter.

Q. Would it be practicable to supply the Cochituate water for domestic purposes and the Sudbury for other uses?

A. Yes, sir; it is practicable; but you would have to lay a new distribution system.

Q. It would be very expensive?

A. It would cost something; but it would not be anything like as large a system as you now have, — not so large a size of pipes. There is no large source of supply that I know of that it is practicable for Boston to take, — and almost all our cities are similarly situated, — with which you will not have difficulties similar to those that you are having now. To attempt to purify the water in the quantity that you are using would be excessively costly.

Q. Is not the question of giving a special supply for faucet use one that we have got to meet?

A. A great many of our cities would be perfectly content with water that other people would find a great deal of fault with.

Q. Take Boston, for instance.

A. It depends upon what the people are going to demand. If they demand water clear to the eye and entirely free from pollution, you will have to meet it in that way. If they are content with water that is not shown to be actually dangerous to health, the question then is a different one.

Q. I suppose it is very difficult to show that it is positively dangerous to health.

A. I do not know that it would be so. I should not think it would be very difficult to show, provided it really is.

Q. The experts who have appeared before this Commission have testified that, in their opinion, it is so; but they cannot bring up special cases and say that that disease was caused by the water.

A. There are volumes of evidence to show that disease is produced by impure water; but it is usually well-water, or water from small supplies. Now, if it is easy to prove in those cases, I should think that it would be much easier to prove that a disease came from a large supply, because it would be more wide-spread. There is considerable evidence that cholera was produced in London from one supply there; but a more thorough analysis of that evidence in later years has led to a good deal of doubt about that.

Mr. SHEPARD. — If I remember rightly they took some testimony in London a short time ago concerning the sewage pollution of one of their water supplies, and it was very concurrent that all sewage should be kept out of a water supply because it was injurious to health; and yet none of the experts could point to a single case.

Dr. BLAKE. — I suppose you have reference to the Snow-street pump, Mr. Davis?

A. I do not refer to any particular case. But in this country, and in England and Germany, there have been plenty of cases where disease was directly traced to impure water; but I do not remember where it has been traced to a large public supply. If an epidemic was produced, it seems to me it could be shown whether it was caused by the water supply or not. How much effect water which, from its color or other cause, is not pleasant to

the senses has upon people who are sick, I do not know anything about; but most such people could easily be provided with water brought in here in barrels, if necessary.

Q. Upon general grounds you would exclude large contaminating sources?

A. Oh, yes. I am only referring to what is practicable. A water supply cannot be too pure.

Mr. GREENOUGH. — Do you know any large cities where they take any more care than we do in the preparation of their basins? How is it with Baltimore?

A. Baltimore did not, as I understand, have to take any care. Their basin was in the bed of the river, as you might say, and it is rocky, so I am told, — I have never been there. A good many years ago Albany dammed up a small stream, and they had a great deal of trouble with their water; but I do not think any soil was removed. Troy got water in about the same way. Worcester got water in that way. New Bedford I have mentioned. Lynn gets its water in that way.

Q. Have they not had trouble at Springfield?

A. Yes, sir. Springfield gets its water in that way.

Dr. BLAKE. — And all the towns around Boston have the same system, and all have the same source of complaint.

A. Most of them. Salem, however, gets its supply from Lake Wenham.

Mr. GREENOUGH. — In other words, there have been experiments for the last twenty years in this country, and they have pretty much all had the same trouble?

A. Yes, sir.

Mr. GREENOUGH. — The question is, what is to be done about it?

Dr. BLAKE. — The what to do about it is, to try some other method. We have had pollutions enough of that kind.

Mr. DAVIS. — I do not know any other large source of a different character that Boston can obtain, except the Merrimack river, and there would be the objection of cost there.

Mr. GREENOUGH. — We would require storage-basins in that case?

A. No, sir. It would require settling-basins and filters, and two sets of pumping apparatus. The first cost was estimated, in 1872, at thirteen million dollars; and then there is the yearly cost of settling, filtering, and pumping.

Q. How would it be about the Charles?

A. It is exactly the same as the Sudbury.

Q. You would have to store your supply from the Charles?

A. Oh, yes. There is nothing available for Boston, that I know of, except this kind of a supply.

Q. Unless you went to the Merrimack. You would have the same trouble with the Sudbury and the Shawsheen?

A. Yes, sir; and with the Merrimack. Those people who are troubled about sewage pollution would have trouble on account of the large cities above the point of taking the supply. A large number of English scientists testified that if one of those germs

that produce disease got into water, there is no reasonable distance the water might travel that would eliminate that germ from it. As a matter of fact, however, we find people using water which has been polluted some distance above the point from which it is taken, and they have never been able to trace disease to the water. In saying this I do not wish to be understood as favoring the use of water that has been polluted by sewage.

Dr. BLAKE. — The germ flourishes in a certain kind of soil, and when it finds a person in a proper condition to be acted upon, it will soon cause an ulceration in the stomach.

A. Yes, sir; I do not deny the statement. But if the argument is carried in other directions as far as it often is with the water supply, — I am speaking particularly about what has been said in England, — you would be afraid to breathe the air in our streets.

Mr. SHEPARD. — Mr. Wightman, have the Water Board had an examination made by Prof. Wood of the water as it comes into our pipes in the city?

Mr. WIGHTMAN. — No; I do not think they have.

Mr. GREENOUGH. — I do not see that you give us very much advice, Mr. Davis, as to how we can better our supply.

A. No, sir. I do not see but that you have a question before you that is exceedingly difficult to deal with. As I have said, the thing I used to hear talked about as much as anything else was the Pegan-brook pollution. I think that can be handled. I think any of those sewage questions can be handled. If the Commission are going into that question I would suggest that they examine this filter. That sewage can be diverted. We made surveys for the diversion of the sewage from Sudbury river while we were building the works. We proposed to take the sewage down below Saxonville, and use it for agricultural purposes,—that is, the drainage from Natick, Ashland, and Marlboro'.

Mr. SHEPARD. — Is it going to be expensive to divert the sewage and take care of it?

A. If I remember the figures, about three-quarters of a million dollars would have built a scheme of works which would have taken the Marlboro' and Ashland sewage, and the Natick and Framingham sewage. Those towns should be made to pay a large portion of that expense.

Q. What would be the running expense? You say you were going to use it for agricultural purposes.

A. There would be no pumping. The farm would be run at a loss; that has been the experience abroad. But it would not be a heavy expense.

Q. The city would have to run that farm; that is, you mean to spread the sewage abroad upon some farm the city would carry on. You do not mean that the city would dispose of it to the town farmers who might want it?

A. No, sir; the city would own the farm. The estimate included the cost of the farm.

Q. Why was nothing ever done?

A. With the exception of Pegan brook there was nothing pressing. I think, probably, the city would have had some report in

reference to it before this time, if it had not been that the Legislature appointed a commission to consider the subject of metropolitan drainage.

Mr. WIGHTMAN. — All that information was before the Commission on metropolitan drainage. We gave them all this information and the surveys.

Mr. SHEPARD. Suppose the city should go ahead and build such works, in case the State ever does establish a metropolitan system of drainage, they would take the city's works at a fair valuation, as they would our intercepting sewer?

Mr. DAVIS. — I would like to answer your question a little further, Mr. Greenough, in relation to vegetable organic impurity, and the question of increased capacity or decrease in consumption; as I have said before, I am not aware that such impurity in moderate quantities is noxious to health. The testimony before the royal commission on water supply, taken in 1868, was practically unanimous on this point. It is only this class of impurities that will be affected by removing the soil, and to produce much benefit *all* the soil — from the valley bottom, as well as from the slopes — must be removed. This is now impracticable in Basins 2 and 3, even if it ever was judicious. The money it would cost had better, in my opinion, be used in, 1st, preventing waste; or, 2d, in increasing the number of storage-basins, that the water in the basins may be kept at a more uniform level, and that in case of necessity an offensive basin may be thrown out of use till the trouble is removed. Longer storage, and exposure to the air and sunlight, will certainly reduce the color and bitter taste. Sewage pollution is another matter, and must be treated at the point where it occurs.

Mr. GREENOUGH. — You do not think we can materially improve the basins we have except at a very large expense?

A. No, sir.

Mr. SHEPARD. — And the further objection is that we cannot do it, because we need the water.

A. You cannot do it in Basins 2 and 3 unless you provide other storage; and I presume Basin 1 is little used for the supply of the city. It was not thought its level would be much drawn down. It is a shallow basin, and the dam was made more to divert the water into the conduit than for storage purposes. The two upper basins are connected directly with the conduit, so that you can obtain the water from them without mixing it in Basin 1. If Basin 1 is to be used as a storage-basin to be drawn down to any large extent, there ought to be a great amount of work upon it, because there is a large amount of soil, and shallow flowage. But, so far as Basins 2 and 3 are concerned, I do not see how it is practicable to do much; and what is necessary to be done I presume the Water Board are doing, and have been doing.

Mr. WIGHTMAN. — We used Basin 1 principally to keep up that daily supply of a million and a half gallons to the river below.

Mr. GREENOUGH. — You have no personal knowledge of the New York water works, Mr. Davis?

A. I have been over them.

Q. They have taken no special care in the preparation of their basins?

A. No, sir. But their soil is not so rich as yours, except in the valley bottoms. There is not so much soil upon the slopes as upon yours.

Dr. BLAKE. — The character of their grounds gives them deeper storage-basins?

A. Yes, sir; very much.

Q. And they have been in use twenty years, and have reached that condition of natural ponds by this time?

A. Well, Croton Lake has been in use forty years or more. Other basins have been built since.

Q. And the water flows twenty miles exposed to the open air before it enters the city?

A. No, sir; it flows direct from Croton Lake in a covered conduit, and is carried into the reservoir just as it is here. But there are basins and ponds higher up the country, and the water from them flows a considerable distance before it reaches the lake.

Adjourned to Monday, January 15, at 4 P.M.

FIFTEENTH HEARING.

MONDAY, January 15, 1883.

The Commission met at 4 P.M.

TESTIMONY OF DR. CHARLES SEDGWICK MINOT.

Dr. BLAKE. — Dr. Minot, I took the liberty of suggesting that you be invited to tell us something about the manner in which the city of Leipsic is supplied with water. I know that you have been there recently, and we are engaged in investigating the water supply of the city of Boston, and wish to obtain all possible light upon the subject.

Dr. MINOT. — I shall be very glad to give the committee any information I possess. I will say a word of explanation first. I knew, upon going abroad, that our water supply required investigation, and that it was desirable that as many as possible should know the necessities of a good water supply. Being in Leipsic, among scientific persons, I took advantage of the opportunity of there meeting Professor Hoffman, who is a professional hygienist, and a member of the city government. From him directly I got information, and we spent a couple of days together, which were mainly devoted to the water supply of Leipsic. He had promised to send me the documents which had been published, and which would place at my command all the exact details of the information as to quantity used, the condition, and all necessary data. These papers I have not yet received; but I think I can give you accurate information, as long as you do not insist upon the exact figures.

The water supply of Leipsic was first built a number of years ago by persons without any experience or knowledge of the subject. The water was exceedingly bad, and very insufficient in

quantity. They made an investigation, which was put in charge of Hoffman. He found the principal contamination was due to a supply of iron in the form of proto-oxides, which came directly from the soil, and that the territory from which the city of Leipsic was supplied was more or less contaminated with this oxide of iron. Thus the water was often rendered unfit for drinking. This difficulty was remedied by flooding water over the pipes at the point of principal contamination, in order to produce a flow away from the pipes, to carry thus the iron away, and prevent the iron salts from entering the supply-pipes laid in the soil. It was known that the town was growing rapidly, and an increased supply had to be sought. The problem was a difficult one. Leipsic is situated on a low plain. Its total elevation above the sea is 150 metres,—perhaps in the neighborhood of 500 feet,—and there are no mountains of any size, or elevated land, in its neighborhood. The water, then, would have to be drawn from some low source, and power used to give it the necessary pressure. It therefore seemed to them that they must draw the water from the soil. An investigation was proceeded with, which led them to the conviction that not only was it best in their case to take water from the soil, but that, whenever it was possible, the water should always be taken directly from the soil, and not from any standing body of water, or from any flowing stream. This investigation was carried on with great minuteness and thoroughness under the direction of Professor Hoffman, and his statements rest upon an ascertained body of facts.

The advantages of the soil-water when taken at sufficient depth, and from a proper point, are that it has a constant composition, that it is not exposed to any temporary alterations in its composition or to any temporary pollution. It has also another great advantage, that of a low temperature, which is a very considerable one, being, I believe, considered advantageous to the water in use, and, from a hygienic point of view, advantageous because a low temperature is unfavorable to the development of lower organisms. That the composition of the water is so constant depends upon the fact of the filtering down, the matters in solution being retained partly by the soil, for no water can pass through the soil without leaving some of its soluble contents in the soil; and if there is an excess of any substance in the earth the water dissolves a portion of that, so that upon arriving at a certain depth the water has always approximately the same composition. This point settled, that they must take their water from the soil, they proceeded to explore the neighborhood of Leipsic by a system of borings which were conducted by the engineer. They made borings leading directly down into the earth, and ascertained the depth of the water at different points. They then drew up a map of these levels,—making, of course, explorations in those directions which seemed most favorable for a water supply,—and from the comparison of those different levels the flow of the water was determined, because, of course, the water flowed towards its lowest level. They did not have to go to a very great depth to find water; in low valleys I think not often beyond a depth of fifteen

or twenty feet. They found that the level of the water in the soil represented a subterranean lake, and was independent of the configuration of the surface, by which, therefore, they could not be guided very much. By this investigation they found the level of the water, and, also, something of the character of the soil. They found that a large deposit of glacial gravel had been left spread over this alluvial plain, over which formerly had run a large river bed, — that of the Mulde in that neighborhood. They succeeded in tracing the bed, and finding that it was actually a stream of water flowing through the soil; and there, at a certain point, where the greatest flow took place, they tapped the supply, put in their boring, and were able to draw from that single boring by pumping a quantity of pure water which was nearly sufficient for the entire city of Leipsic, — Leipsic having a population of 150,000, — and, if I remember correctly, though that point I am not positive about, the daily use is about forty gallons. These works were not completed at the time I was in Leipsic; they were being still carried on. The system is, after having determined where the pipes are to be laid, to make trenches and borings, and to lay porous pipes in them, and connect with a main to conduct the water towards the city. These pipes are laid below the level of the water. The supply which is obtained is very large, because they find that this soil is entirely saturated with water at a certain depth. There is there, as probably in every country with anything like a similar constitution of surface, a supply of water at a certain depth below the surface, which supply is of very great extent, because it fills up, as I said before, the whole space between the particles of the soil; and it can be shown very easily that the amount of empty space in a deposit of gravel is about one-third of the total space occupied, so that one-third is water and two-thirds solid matter. This, then, virtually gives them an unlimited supply, which they are perfectly certain of as long as the country remains in its present condition, which is one of superficial cultivation, with only a small number of habitations about it.

The emphasis which Hoffman laid upon the advantages of soil-water made a very deep impression upon me, and led me to think that in proposing to enlarge any further our system, or to build a new one, in this country, due consideration should be given to the possibility of having the supply drawn entirely from the soil, because of its greater purity and constancy of composition, and its freedom from accidental pollution; and upon inquiry I find that in London the water supply which comes from deep springs, and which is, therefore, soil-water like this, and which is supplied by the Kent Company, is purest. Though I do not speak with the greatest confidence of that fact, I think that is correct; and in this country there have been similar experiments, which I believe have been very successful.

Dr. BLAKE. — In Brooklyn, N.Y.?

Dr. MINOT. — In Brooklyn, N.Y. So that there seems to be a great deal to suggest the advantages of that method.

On the other hand, the disadvantages of any superficial supply of water were shown by the experience in Leipsic in first laying

pipes where they laid them, — in low, marshy land, not very far from villages, and not very far from a small stream which runs into Leipsic, which is not very pure. These pipes were not laid very deep, and the nature of the water was not determined beforehand. Its composition was exceedingly bad, and produced a great deal of sickness in Leipsic. Undoubtedly the expense saved to the city by the appointment of their scientific commission was very great. The city had proposed, up to that time, to extend the same source of supply further out, where examination showed, however, that the water was a great deal worse than where they started.

In regard to the other method of water supply there is something which has been suggested by the experience of Leipsic, which might prove to be of interest, perhaps. They also took up the question of a supply to be drawn from rivers and ponds, although those in the neighborhood of Leipsic are small and unimportant. They found, as other chemists have found, that the supply from ponds and rivers is always uncertain, is always less satisfactory than that from the soil, and is necessarily so, because the washings from the surface are gathered into it whenever there is a heavy rain. These, I suppose, are well-known facts to you. They led me to make some further inquiry as to the manner in which they got rid of those terrible impurities to which they had been subjected in their original supply. Hoffman gave me, as the result of their experience, the rule that the vegetation should not be disturbed more than necessary, but that abundant and ample growth of vegetation was necessary for the purification of the water, and that the taking out of that vegetation was largely a mistake; that it would be better in many cases to leave the bottom entirely undisturbed, and let the vegetation exert its uncontrolled purifying influence; and he instanced a great many cases in which that had been done, and also other cases in which it had not been done, which he followed up by comparisons, and stated to me the figures of his analyses, which I do not recollect. He then went on to say that they had suffered particularly when they had attempted to clean out their basins, which are small, or not very large. If they drained them off, and cleaned them out, they found it was the worst thing they could do, — the worst process of purifying which they had tried, — because the draining off necessarily killed the organisms of the plants and vegetables in the water; that no pond could be completely cleaned out, except with great difficulty and much labor; when you put the water back you have artificially killed the organisms, especially the animal, which immediately proceed to decay, and which in a half-decayed condition were dangerous; the difference between the ordinary process of decay and the artificial process being that, in the ordinary process, the organic decay takes place with considerable rapidity, and that if you accomplish the dissolution of any organic matter it is perfectly dangerless. That is to say, if you swallow food it decomposes completely, the decomposition takes place in a few hours, and there is no danger from it; if you allow the same food to decompose slowly, it is dangerous. With the natural supply of decomposing agents in water, which is left undisturbed with an abundance of clean water, there really occurs a rapid

decomposition ; when you drain off the water and then clean up as well as you can, and put the water back, you have an accumulation of matter which is so great that decomposition is necessarily slow and dangerous.

I believe there is only one other point which struck me as being likely to be of interest, especially to you, and that is that, according to the source of the water, the manner of storing it should be varied ; that if it is taken from an open supply, a pond or river, the storage-basins should be large in order to allow rapid settling and purification of the water. If you allow it to be spread over considerable surface, you allow vegetable action to take place in it. If, on the other hand, you draw your water from the soil, it is best to store it in a small reservoir, where the water is constantly running, because you must preserve it in its pure condition, and when so stored it is much less exposed to contamination.

Dr. BLAKE. — Doctor, you are familiar with Boston's system of water supply, — drawing from the river and storing in basins?

A. Yes, sir.

Q. Do you know the manner in which the basins were prepared for the storage of the water?

A. I am not familiar with all the details of it. I believe that in part marsh and low lands were converted into basins.

Q. Without any preparation?

A. Without any preparation.

Q. Do you consider that a desirable method of procedure?

A. I should think it was a very unfortunate method, one which would certainly lead to contamination of the water.

Q. If you had been consulted in regard to the preparation of those basins, what conditions would you think absolutely necessary to preserve the purity of the water?

A. I should think, in the first place, the removal of all the alluvial soil, of all the superficial soil distributed upon the surface down to a gravel or sandy bottom, as the case might be ; and that any soil which had any formation of organic matter in it should be entirely removed.

Q. You would do that before admitting the water?

A. Before admitting the water.

Q. And you would also, I presume, obtain, if possible, a considerable depth in all parts of the basins, would you not?

A. Yes, sir.

Q. And that with a view to obtaining a low temperature of the water?

A. Yes, sir.

Q. Provided that these measures were not taken at the beginning, would you deem it advisable, if circumstances permitted, to draw off the water from one of these basins at a time, remove the alluvial soil and decayed loam, and then allow the water to go back again?

A. I should think that that would be a hazardous experiment, unless it was treated like the making of a basin originally.

Q. If we were able to completely empty one of these basins which had not been properly prepared in the beginning, after

emptying the basin and removing all the soil and loam during cold weather, the water might then be returned with very little danger?

A. I think so, in that case. I think the essential condition would be to do it during the cold season, however ; — after the cold weather had begun.

Q. If you were consulted by the city as to the best method of preparing storage-basins for the future you would insist, then, upon the removal of the loam and the soil, and the obtaining of a considerable depth for the basins, would you not?

A. I would insist, with our present system of supply, that these are indispensable conditions.

Mr. GREENOUGH. — Mr. Minot, do you take the ground that the existence of the soil on the bottom of these basins would prove to be deleterious to the public health?

A. Yes, sir.

Q. What would you expect to be the effect upon the public health?

A. I think the effect of it is that it is a source of organic decomposition. It is a great storage of partly decomposed organic matter which forms that soil ; and the moment you put water upon it decomposition sets forward again, and the water is necessarily contaminated with the gases developed by decomposition and with the soluble organic matter which is also formed. I think these are inevitable results.

Q. Well, I believe the proportion of one part in ten thousand is supposed to be healthy.

A. I think what proportion is healthy may be determined by chemical analysis. It may interest you to know that the subject will shortly be treated fully in a report by Prof. Leeds, of Hoboken, N.J., who has taken up that question. I think that it will undoubtedly be a thorough discussion of the subject. I think they are all agreed that it is not safe to put any absolute limit as to what proportion is certainly healthy or unhealthy.

Q. When do you expect that report will be published?

A. Probably in a few days.

Dr. BLAKE. — Is it generally understood among chemists that, when you obtain by chemical analysis more than a certain per cent. of solid matters in water, such water is liable to become dangerous to health?

A. I think so.

Q. I suppose the nature of the solid matter would have a good deal to do with the healthiness of the water?

A. Certainly.

Q. I take it that any water holding a large percentage of organic matter, under certain circumstances of temperature and conditions, will become an element dangerous to the public health?

A. Certainly. There is one other point, which does not come directly from what I saw in Leipsic, which, if gentlemen will permit me, I might mention, and that is, the independence of the healthfulness of water from its taste. I think it is considered by a good many persons — and I am one of them — that the attention which has been directed to the taste of Boston water is unfor-

fortunate, for this reason : that we may have water which is perfectly tasteless and perfectly pure in its appearance, and which is yet in an extremely dangerous condition. Taste is not an index to the hygienic condition of the water. Not only is it true that we may have water which tastes perfectly well, and may yet be unhealthy, but the opposite is true, — we may have water which tastes badly, but which is perfectly safe to drink.

Q. I suppose that water contaminated by sewage might be tasteless and very agreeable to look at, quite clear and free from anything disagreeable in color as well as taste, and yet be extremely dangerous to health?

A. Certainly.

Mr. GREENOUGH. — I want to ask you a few more questions about this Leipsic system. As I understand, they pump the water from a large pipe to which a number of feeders have been brought, which drain the water from what is called the water level in the ground?

A. Yes, sir.

Q. To what extent do they carry those feeders?

A. They do not carry them to any great distance. They have a long tube which runs in the direction of the stream, and they have a series of cross tubes, — smaller pipes running laterally, — and those pipes will not be more than a few hundred feet (I think) long on each side. At present the pipes are not very long, because from a pretty small area they can gather an enormous supply under exceedingly favorable circumstances.

Q. They pump only for the daily use?

A. They have a reservoir which holds enough for daily use and for fires.

Q. Comparatively small?

A. A comparatively small reservoir.

Q. They pump forty gallons per inhabitant per day?

A. Yes, sir.

Q. Six millions of gallons per day?

A. Yes, sir, if my recollection be correct.

Q. Well, that condition of things can only exist under exceptionally favorable circumstances, I should imagine.

A. From what I saw there, I should think not. I should think that in a majority of cases it would be possible to draw upon the soil for water.

Q. Take this case, for example : where there are no underlying strata to any extent, if you bore for water in the vicinity of Boston you might get the drainage of some small area, but you are not liable to tap any large flowing stream, as in a country where the underground water-courses have not been interfered with.

A. You have here, in the vicinity of Boston, districts which are not very much inhabited on the surface, and there is no *a priori* reason of which I am aware why pipes might not be laid along the sides of a stream, and the water which flows down through the soil into that be drained off before reaching the river. It would practically be the same thing, only in one case the river which you do not tap goes on the surface, and in the other case it goes under the ground.

Mr. BRADLEE. — In this place you speak of are the pipes near a stream or river?

A. Near no superficial river. It is merely the flow of the water in the ground.

Mr. GREENOUGH. — Where does it flow to?

A. They have not followed the stream to its definite outflow. It probably flows off and joins the Elbe.

Q. Do they suppose they are taking water which has run under ground for a great distance, or that they are simply tapping soil-water which has settled through the ground?

A. They think it is filtered water from the general surface.

Q. They do not expect to get a quantity of water which has drained down from the surface?

A. No. They get water which has flowed together from a very large superficial area, the peculiar feature being that there was this old river-bed, in which the water actually flowed, and now that river-bed has been filled up with gravel, which has been carried into it, and the gravel at the same time has been spread out on either side and makes the top of the land or earth upon which the houses are built; and now, when the water soaks down through the gravel and reaches the old superficial soil, it enters again the old river bed, and, as it finds there in the loose gravel its easiest passage, it still passes along over what was formerly the river-bed and flows through the spaces in the gravel.

Q. Where they are able to find large superficial deposits of gravel, you would expect to find considerable water down below?

A. Yes, sir.

Q. In a great many places you could not do that without corresponding damage. It takes the water out from a very large neighborhood, and reduces its height in the wells sometimes.

A. That certainly is the case; but then the laying of this system of pipes at any place where there is water is a comparatively inexpensive process, for the water is not very deep below the surface. And the water works need not be carried on all at one point.

Mr. SHEPARD. — What is the quality of this water that they get at Leipsic?

A. It is very pure water, indeed. It contains a minimum quantity of organic matter, a small proportion of earthy salts to give a little sparkle to the water, and I think a somewhat large amount of carbonic-acid gas.

Q. Did they start with this plan by design, or was it suggested by accident?

A. They started upon it by design.

Mr. GREENOUGH. — Did they consider the subject of filtration, or have you given the matter attention?

A. I think in the London companies the experience with filtration has been unfavorable. They are doing it in most of the companies; but it involves very great expense, and is exposed to frequent accidents. The Kent company, which I believe draws its water from a deep source, escapes with much less trouble than the others.

Dr. BLAKE. — How much water does the Kent company obtain in that way, do you remember?

A. That I cannot tell.

Q. From your knowledge of the geological formation of Boston and vicinity, do you think any system of that sort would justify the expense and trouble of testing it?

A. I should think it was sufficiently possible to make it worthy of serious consideration, because there are very large areas of gravel deposit in the neighborhood of Boston; and it does not follow that, because the borings, which have been made on marsh lands and on land entirely surrounded by salt water, where they were not able to properly test the soil or surface water, were not successful, borings elsewhere would not be so. I do not think that would be sufficient guidance for forming a definite opinion in the matter.

Q. Well, from your knowledge of Boston and its surroundings and suburbs, — the neighborhood of Boston in a radius of a dozen miles, — does any place occur to you as favorable to a trial similar to that at Leipsic?

A. I should think that out in the direction towards the northwest, or towards the west, there might be localities where it would be desirable to try. But that is a question which I am not prepared to answer as an expert at all.

Q. Out towards Framingham?

A. Yes; in that direction, where we now get part of our supply for the city. I think that is a question that might be answered by local geologists. There is a gentleman at the Natural History rooms, Mr. Crosby, who is familiar with the geological aspects of that territory, and has examined it with considerable thoroughness.

Q. Do you think there is reasonable probability of our obtaining a tolerable supply of pure water in that way, sufficient to justify the experiment?

A. I should not be willing to take the responsibility of giving determining advice upon that point; but, as far as my knowledge of the matter goes, I should think it was very probable that it would repay the outlay.

Q. Under no circumstances would you allow sewage contamination to enter the city's water supply?

A. No. I think that is inexcusable. That cannot be defended or excused in any way.

Q. You are quite positive in your belief that sewage does not become innocuous by dilution, or by exposure to the atmosphere?

A. I think that sewage may certainly be rendered innocuous by dilution, oxidation, and precipitation. But the introduction of sewage is rendered objectionable by the peculiarity of our climate, which subjects us often to long periods of drouth, while the supply of sewage does not have any such diminution. It is a constant supply, and as the supply of fresh water diminishes the ratio of sewage increases to such an extent as to make it peculiarly liable to be dangerous.

Mr. GREENOUGH. — Do you consider that sewage can be purified by dilution?

A. I think it is doubtful whether dilution, unless it is carried to an extreme extent, is sufficient. But I think it is quite settled that oxidation and precipitation do suffice to render it perfectly

innocuous. In moving water that takes place with extreme rapidity, so that, I think, if we had an ordinarily constant supply of pure water we might, perhaps, accept a moderate admixture of sewage. But that is not the condition which exists.

DR. BLAKE. — And the danger is so great that you are in favor of excluding it in toto?

A. I think so. I think, situated as we are, that would be the only justifiable course.

Q. Does water purify itself from decaying organic matter by aeration or oxidation and constant motion, do you think, so as to render it healthful?

A. Yes; I think it does so entirely. In Leipsic they say that such is the fact, even in the case of very quietly flowing streams; that a contamination of thirty-five parts of ammonia, which is three or four times more than the health limit, will disappear in a flow of three or four miles, or with great rapidity. The process is also hastened by the sediment which is swept into the river. Probably the fine particles of mud have a disinfecting action, besides acting as material for precipitation where the process is long preserved.

Q. That process of decomposition, oxidation, and deposition takes place more rapidly where the water is exposed to the air, of course, and is not enclosed in a culvert?

A. Very much more rapidly.

Q. So that passage through a culvert would not have the same effect?

A. No, sir. On the contrary, the passage through a conduit, I think, may expose impure water to increased danger, because it appears, from some of the observations that have been made, that the low organisms which are so dangerous do not always develop in open water, and there is some reason for thinking it probable that dangerous forms are developed in closed tubes when not developed in open water, and that the same organisms which in open water are innocuous may become very dangerous to health in passing through closed tubes. And I believe there was a case of such pollution, which did occur in our own experience, when the water possessed a very disagreeable constitution, some years ago, and it was found that the contamination arose in the pipes. These, of course, are matters concerning the development of these organisms which, as you are all aware, are very much in debate, therefore I would not express positive opinions about them.

Q. But, finding that our water is largely impure, we cannot expect that the simple passage through a closed and darkened culvert is going to deprive that water to any appreciable extent of its noxious qualities or impurities?

A. I do not think you can safely count upon it.

Q. You have not the sunlight and you have not the same conditions?

A. And, I think, another essential difference is the absence of green vegetation, the presence of which is very important, because it is the principal source of the development of oxygen, the constant renewal of which by plants is, I believe, considered by chem-

ists more important in the purification of water than is the oxygen absorbed from the air. Oxygen is present in minute quantities, but disappears in open water; hence the necessity of its constant renewal. I believe it is considered now that the influence of atmospheric air upon the purification of water is of less importance than has been assumed, and that the vegetation as a deoxidizing agent is more important than the direct action of the air. I made some inquiries, both of Professor Hoffman and of Professor Leeds, as to whether there would be any object in artificially aerating water in the passage from the storage-basins to the city, and they both—neither knowing the other's answer—said immediately not; that air could not be introduced into the water in sufficient quantity to accomplish purification,—that it would not pay for the expense.

Q. On the general subject of Boston's water supply, Doctor, knowing the nature and extent of the complaints, have you any suggestions to make to this Commission as to how best to remedy them?

A. I do not think I wish to make any suggestions beyond what would naturally come of themselves from what I have said. That is, the desirability of establishing rules to prevent the present system of occasionally drawing off and cleaning; then the necessity of preserving the vegetation of the basins, and, if it ever becomes necessary to clean them, to do so by dredging, and in that case to allow the vegetation to start up again before the water is again turned into the system of water supply; and, also, the consideration of the possibility of using the soil-water in case an increase in the water supply should be deemed necessary. I think the other suggestions will appear of themselves.

Q. In relation to the subject of vegetation, if you should remove the soil from which vegetation would naturally grow, what would you deem essential as a substitute? Would you create artificial vegetation there?

A. No, sir; because vegetation will always develop of itself as soon as it is requisite. It will form in its own soil and constantly increase, so that if you have a clean bottom all you have to do is to leave it undisturbed. If you clean it off by dredging at the beginning, or during the hot season, the pond is exposed to putrefaction of the vegetation killed; but if you do so in the late autumn, then by next spring the vegetation would start up again.

Q. Then there is no danger to be apprehended from cleaning, provided the proper time of the year is chosen?

A. If the proper time of the year is chosen, and if you avoid killing off what you leave there.

Q. Well, suppose we clean the bottom thoroughly, remove all the alluvial soil and mould, etc., and do that very completely during cold weather, or at the beginning of cold weather, there is no danger to be apprehended from admitting the water there, and using that water the following summer, is there?

A. I think not, if the cleaning is really thorough. But it is almost impossible, in a majority of cases impossible, to have a really thorough cleaning.

Q. Even if you undertook it late in the season, and do not do

it perfectly, you would not have any vegetable organisms there under water?

A. Not during cold weather; but you might preserve a portion of the vegetable material until the next spring, and it would give rise to trouble then.

Q. Then you consider that the process even at any time is somewhat dangerous?

A. Yes; I think it should be reduced to a minimum.

Q. No new basin would be free from being exposed to the same thing?

A. When you start with a new basin, and clear away all the alluvial soil down to the gravel, you get down to a clean bottom, and you start with that. But if you have water turned in without removing the soil you have a great supply of matter which is partly in a state of preservation and partly decayed, besides everything which was killed when you drained off the water to clean up. And it is practically extremely difficult to clean off the bottom of such a basin completely unless you make the work on the bottom as you do when you first make it. There is the difference. Any one who has seen the actual cleaning out of a basin, and the condition of the water after it was let in again during the summer season, has seen at once that there was a very great contamination of the water.

Q. Is there any specific time during which these artificially prepared basins assume the character of natural ponds by process of self-purification?

A. I think in the course of a year or two they will come to be like natural ponds by self-purification.

Q. That is, by the process of solution, decomposition, and deposition, these decayed organic matters sink to the bottom and become harmless?

A. Yes, sir.

Q. And you would not consider that water injurious or deleterious to health?

A. No, sir. Without speaking of each individual case, I should expect that such water would be fit to use.

Q. Well, we have these conditions practically now, in our storage-basins.

A. No; because you have not the conditions of a natural pond. In a natural pond the decomposition of matter takes place as it is formed, and you find there that this matter is kept in a constantly moist condition, and, having undergone this decomposition upon the surface, it then remains in a tolerably constant condition. When such a deposit as that is converted into soil, as has actually occurred in meadows, you have again altered conditions, and you no longer have the conditions which existed when the meadow was submerged, because the exposed soil has been acted upon by worms, insect larvæ, moles, and other terranean animals, and they have deposited their fæces in it, and the whole nature of the soil is very different from the bottom of a natural pond.

Mr. SHEPARD. — As I understand, the Water Board now for some years have been removing the loam gradually in these basins

during the summer season when the water is low, so that in time they expect to get it all removed around the borders to a depth of from seven to twelve feet; and, from the remarks you have last made, I should consider you would assume that to be dangerous to the water supply?

A. I should think it was undesirable to do that during that season.

Q. Well, it would be at any time, would it, to keep continually drawing water from that basin?

A. The continual drawing of water from that basin, and the storing of it, I think, must increase the danger of pollution, because it is a question of solution from such a soil. Of course the rapidity of solution depends upon the extent of the exposed surface; and if the soil is dug up a great deal of it remains suspended in the water, and thereby the surface for solution is increased.

Q. Then would there be any other way than to shut off one of those basins, drain the water off, and clear the basin, and then let the water in to stand for some months before using it?

A. I should think that would be the best way.

Dr. BLAKE. — And to do that in cold weather?

A. Yes, sir.

Mr. SHEPARD. — And that is practically the only way, is it not?

A. I think so, — consistently with a due regard to health.

Q. And that would be done with comparatively little danger, and with great ultimate benefit?

A. Yes, sir.

Q. It has been stated by the engineers that the expense of that is going to be something very large. Do you think it is important enough to say that it should be done notwithstanding?

A. As far as I can judge, I should suppose it would be.

Dr. BLAKE. — You think, Doctor, that the ultimate benefit following that thorough cleansing would justify the expense, even if large?

A. That would be my opinion. I only wish to have it understood clearly that I do not consider myself one of those who have thoroughly investigated the matter.

Q. Well, as a tax-payer, and having that stated to you as the result of scientific investigation, you would feel justified in authorizing such an expense for the benefit that you would personally derive from having a better supply of water?

A. Yes, sir; that is so.

Mr. SHEPARD. — Are you of the opinion that the soil should be removed from the entire basin, even where the water is to be deep?

A. I should think that would be the best plan, unquestionably. I should hope to have my reservation noted, that I do not consider myself sufficiently posted. If I were to give advice which would be decisive, I should want to have some such opportunity as the Commission have enjoyed.

Dr. BLAKE. — Are you familiar with the possible sources of water supply for Boston?

A. Only roughly. I have no very minute familiarity with them.

Q. From your experience, from the experience of the authorities at Leipsic, and from your general knowledge of the surroundings of Boston, you think we would be justified in making the experiment of obtaining a supply of water by boring?

A. A supply of surface water, that is, I should not recommend seeking for deep water, but soil-water in its ordinary sense, standing at a certain level below the surface. I should think you would.

Q. How deep would you consider it desirable to penetrate in order to endeavor to obtain water?

A. Not more than a limited number of feet.

Q. Fifty feet?

A. I should think fifty feet would be the outside limit. It might be desirable in making the investigation to make some borings which would go deeper than that, because the standing of the water does not depend upon the configuration of the surface. You might get upon a hill where you would wish to make a boring; of course that would increase necessarily the depth. But I should consider that advisable only in case an increased supply was necessary. I think our supply now is a very large one.

Adjourned.

BOSTON, Dec. 9, 1882.

WATER ANALYSIS,

SUDBURY-RIVER WATERS, FROM BOSTON WATER COMMISSION.

[Figures express parts per 100,000 of water.]

Location.	Free Ammonia.	"Albuminoid" Ammonia.	Chlorine.	RESIDUE.			Hardness.
				Fixed.	Volatile.	Total.	
Above Cedar Swamp Pond	.0008	.0084	.21	2.90	3.00	5.90	1
Below " " "	.0024	.0198	.56	4.00	4.40	8.40	1½
Above Junction of Cedar Brook .	.0043	.0184	.32	1.40	3.70	5.10	½
" Basin II.	.0011	.0192	.46	3.60	4.00	7.60	1
Dam II.	.0005	.0302	.52	3.70	5.00	8.70	1
Above Basin III.	.0037	.0194	.60	3.60	2.50	6.10	1½
Dam III.	.0005	.0290	.48	3.25	3.00	6.25	1
Service at Medical School, Feb. 3 .	.0026	.0222	.48	3.50	4.10	7.60	1°

EDWARD S. WOOD.

A REPORT

OF THE

RECORD COMMISSIONERS

CONTAINING

BOSTON BIRTHS, BAPTISMS, MARRIAGES, AND
DEATHS, 1630-1699.



BOSTON:
ROCKWELL AND CHURCHILL, CITY PRINTERS,
No. 39 ARCH STREET.
1883.

CITY OF



BOSTON.

REPORT

OF THE

RECORD COMMISSIONERS.

The Record Commissioners of the City of Boston herewith offer the ninth volume printed under their charge. It was intended and is believed to contain every entry of birth, death, and marriage recorded as happening in the town of Boston in the first seventy years of its existence, and now found in the office of the City Registrar, and every entry of baptism on the records of the First Church for the same period.

A few words are all that it is necessary to say of the latter. The records are perfect, and for most of the time remarkably well kept. The volume containing them was probably not in use in 1630, as the baptisms for the early years seem to have been all recorded together, but apparently before 1640. Where the mother of a child is named alone or first, it is because she was a member of the Church, while the father was not. It was not thought necessary to include the baptisms at other churches before 1700, for the following reasons: those recorded at the Second Church begin only about 1690, and are already in print; those of the Baptist Church are very few indeed; and those of the Old South will probably soon appear in print, under the care of a member of that church.

The Town Records require much longer notice. The authorities of the Colony of Massachusetts intended from the beginning to provide for a complete record of all children born within its limits, and of all deaths and marriages; and

at various times took action to secure such record. In September, 1639, the General Court ordered, "That there bee records kept of all wills, administrations, & inventories, as also of the dayes of every marriage, birth, & death of every person within this jurisdiction." In June, 1642, we read that "Whereas, at the Generall Cort the 4th 7th mo. 1639 there was provision made for the recording of severall particulers, amongst which it is observed that birthes, deathes, & marriages are much neglected in many townes,—

"It is therefore ordered, that hereafter the clarks of the writts in severall townes shall take especially care to record all birthes & deathes of persons in their townes; & for every birth & death they so record they are to have allowed them the summe of 3^d, & are to deliver in yearly to the recorder of the Cort belonging to the jurisdiction where they live a transcript thereof, togeather with so many pence as there are births & deaths recorded, & this under the penalty of 20^s for every neglect; & for time past it is ordered, they shall do their utmost indeavor to find out in their severall townes who hath bene borne, & who hath died, since the first founding of their townes, & to record the same as aforesaid.

"Also the magistrates & other persons appointed to marry shall yearly deliver to the recorder of that Cort that is nearest to the place of their habitation the names of such persons as they have married, with the dayes, months, & yeares of the same; & the said recorders are faithfully & carefully to inrolle such birthes, deathes, & marriages as shall thus bee committed to their trust."¹ In May, 1657, it was found necessary to go farther, and "This Court, taking into their consideration the great damage that will unavoydeably acruce to the posteritie of this common wealth by the generall neglect of observing the lawe injoyning a record of all births, deaths & marriages within this collony, doe therefore order, that henceforth the clarks of the writts in each towne respectively take due care for effecting the same according to the intent of the aforesaid lawe: and in case any person or persons shall neglect their duty required by the said lawe more then one month after any birth, death, or marriage, the clarke of the writts shall demand the same, with twelve pence a name for his care and paynes; and in case any shall refuse to satisfy him, he shall then retourne the names of such person or persons to the next magistrate or commissioners of the towne where such person dwells, who shall send for the party so refusing, and in case he shall persist therein, shall

¹ The action of the Selectmen of Boston upon this order may be seen on page 71 of the second volume of the Record Commissioners.

give order to the councstable to levy the same. And if any clarke of the writts shall neglect his duty hereby injoynd him, he shall pay the following penalty; *i.e.*, for neglect of a yearly retourne to the County Court, five pounds, and for neglect of retourning the name of any person retourneable by this lawe, whither borne, married, or dead, more then thirty daies before his retourne to the County Court, five shillings. And that no future neglect may be heerein, the recorder of each County Court is hereby injoynd from time to time to certify the County Courts respectively the names of all such clarks as shall neglect to make their yearely retourne according to this lawe, who, uppon notice given, shall send for such clarke, and deale in the case according as lawe requireth."

For most of the years before 1700 the record of births seems to be quite full and complete; but sometimes, as in 1675, nearly all was lost by some chance. The years 1647-50 are also evidently imperfect. The deaths and marriages are less regularly recorded, and there is a long break in each. No deaths were recorded 1665-88, and no marriages 1663-79.

The contents of this volume are found in five volumes of manuscript. In the first volume are the following, viz.: "A register of the Births & Deaths in Boston from the yeare 1630 untill the first of the first month 1644," sixteen pages and a half in one general alphabetical arrangement; "Boston Register from (8) 1643 unto the (1) 1646," three pages and a half in one general alphabetical arrangement; "Boston births and burialls," 1646-50, four pages in the same form; "Boston Birthes" 1651-57, forty pages and a half, "by Jonathan Negus Clarke of the Writts in Boston, 28. 8. 1657;" "Deaths," 1651-57, nine pages also by Jonathan Negus; "Boston Marriages," 1651-57, fourteen pages also by Jonathan Negus 28 December 1657; "Boston Birthes" 1658-62, twenty-seven pages, "Boston Deathes" 1658-62, nine pages, "Boston Marriages" 1658-62, ten pages and a half, all by Jonathan Negus; "Boston Births" 1657-66, seventeen pages and a half, and "Boston Deathes" 1567-64, six pages. Probably a leaf at the end is missing.

The second volume contains a copy of all the births recorded in the first, and the births 1666-89, those of each year being arranged alphabetically.

The third volume contains Births 1689-92, in one alphabetical arrangement, with the following statement, "Whereas the Births within the Town of Boston entered by Mr. Joseph Webb deceaced dureing the time of his being Clerk of the Writts for the County of Suffolke have since his deceace been misslayd so as that they came not to hand untill this present

year the which Births being then found contained in severall wast Books on file with the Records of the sd. County Are now digested into Alphabetticall Order and in this and the sixteen foregoing pages are recorded being with the said wast Bookes carefully compared & Exam^d. in the year 1709 p. Joseph Prout Town Clerk ;" "Sundry Births Recorded outt of Season," half a page ; "Sundry more Births as entered in the Townes waste Book kept by Capt. Ephraim Savage when he was Clerk," half a page ; Births from March 1693 to 1696, eighteen pages in one arrangement ; "Boston Births being transferr'd out of a Waste book kept by Mr. William Griggs while he was Town Clerk being such Births then brought in to him & belonging to preceeding years," one page and a half ; Births for 1697, 98, 99, each year alphabetically.

The fourth volume contains Marriages 1689-95, twenty pages in one arrangement, (Webb's record), with statement by Joseph Prout similar to the first in third volume ; Marriages 1693, 94, 95, 96, three pages, (Savage's record), with statement nearly as in third volume ; Marriages for 1697, 98, 99.

The fifth volume contains Deaths 1689, 90, 91, 92, seven pages in one arrangement (Webb's record), with statement by Prout similar to first in third volume ; Deaths for 1696, one page ; Deaths 1693, 94, 95, 96, three pages and a half in one arrangement ; and Deaths for 1697, 98, 99. The number of misplaced entries in every class is very great in each volume.

Every entry on Town Records and Church Records has been compared with the original, and it is believed that the exact meaning is expressed in the printed copy, though the wording has been often changed for the sake of brevity. The editing Commissioner claims no infallibility in reading old manuscript, but has had the advantage of long experience. In some cases an equally practised person might read the name differently, at least in one or two letters : but most of the mistakes were made by the writer of the original manuscript. No exact rule has been followed as to duplicate entries, but generally only one has been printed ; in some cases intentionally, and in a few accidentally, both entries appear in this volume. It is hoped that the Index will be approved. The various spellings, evidently intended for the same name, have been generally grouped under the form most often or most correctly used ; but sometimes it has been thought best to do otherwise, especially when it is not easy to say which is the standard or correct form.

Readers will kindly note these two marriages as belonging to 1699, and accidentally omitted : —

Joseph Shaw & Mercy Cross were married by Mr. Cotton Mather Feb. 22.

Richard Smith & Mary Clay were married by Mr. Cotton Mather Feb. 9.

The charge of this volume, since it was put in the printer's hands, has been entirely with the junior Commissioner, who alone is responsible for all mistakes since the preparation of copy.

Respectfully submitted,

WILLIAM H. WHITMORE,

WILLIAM S. APPLETON,

Record Commissioners.

BOSTON, October, 1883.

BOSTON TOWN AND CHURCH RECORDS.

BIRTHS AND BAPTISMS.

1630.

TOWN.

Edward son of Wm and Elizabeth Aspinwall born 26 day of 7th month and died 10th day of 8th month.

FIRST CHURCH.

Joy & Recompence daug ^{rs} of John Milles	8 mo.
Pittie daug ^r of Will ^m Baulstone	8 mo.
Increase of Increase Nowell ¹	21 day 9 mo.

1631.

TOWN.

Hannah of Wm & Elizabeth Aspinwall born 25 day of 10th month.
Jerusha of Edward & Margaret Gibbons born 5th day 8th month.
Elizabeth of Matthias & Anne Ijons born 15th day 2nd month.

FIRST CHURCH.

[The following entries are dated 1631, but undoubtedly belong to 1632.
— W. S. A.]

Abigail of Increase Nowell ¹	3 day 4 mo.
Samuel son of Raph Sprage ¹	3 day 4 mo.
Phebe daughter of Ezekiel Richardson ¹	3 day 4 mo.
Lidya daug ^r of John Perkins ¹	3 day 4 mo.
John of Henry Harwoode ¹	3 day 4 mo.
John of John Milles	3 day 4 mo.
Mary of Richard Gridley	10 day 4 mo.
Josiah & Mary of Edward Raynsford	17 day 4 mo.
Will ^m of John Winthroe Governor	26 day 6 mo.
Mary of Thomas French	23 day 7 mo.

1632.

TOWN.

Anne of Wm & Anne Beamsley born 13th day of 12th month.
Jacob of Jacob Eliott born 16th day 10th month.
Mary of Richard & Grace Gridley born 14th day 2nd month.
Mary of Edward & ——— Rainsford born 1st — 4th month.
Joshua of Edward & ——— Rainsford born 1st — 4th month. & died 7th month.
Wife of Edward Rainsford died 4th month.

¹ Not called "our brother," i.e., not member of this Church. — W.S.A.

FIRST CHURCH.

John of Will ^m Cheesebrough	11 day 9 mo.
Ruth of John Foxalls ¹	11 day 9 mo.
Jacob of Jacob Elyott	16 day 10 mo.

1633.

TOWN.

Elizabeth of Wm & Elisabeth Aspinwall born 30th day of 7th month.
 Seaborne of John & Sarah Cotton born 12 day 6 month.
 Jotham son of Edward & Margaret Gibbons born 6th day 8th month.
 Nathaniel of William & Susan Hudson born 30th day of 11th month.
 John of Thomas & Anne Leverit born 7th day 7th month.
 Jeremy son of Walter & Rebecca Merry born 11th month & died soon after.
 Hannah of John & Hannah Newgate born 1st day 6th month & died in the
 11th month.
 Nathaniel of Mr Thomas Oliver died 9th month.
 Mary of Mr John & Elizabeth Wilson born 12th — 7th month.
 Timothy of Richard & Judith Tapping born & died.

FIRST CHURCH.

James of James Pennyman.	26 day 1 mo.
William of William Balstone.	15 day 2 mo.
John of John Sampford	26 day 4 mo.
Hannah of Anne Newgate	6 day 6 mo.
Seaborne son of John Cotton	8 day 7 mo.
John of Anthony Colby.	8 day 7 mo.
Mary of John Wilson	15 day 7 mo.
Elizabeth of William Aspinwall.	22 day 7 mo.
Jotham of Edward Gibbon	27 day 8 mo.
Thomas of Thomas Mattson	27 day 8 mo.
Elizabeth of George Ruggle	8 day 10 mo.
Timothy of Richard Topping	15 day 10 mo.
Nathaniel of William Hudson	19 day 11 mo.
Mary of Lettysse Button	23 day 12 mo.

1634.

TOWN.

Sarah of Nathaniel & Alice Bishop born 20th day 1st month.
 John of Jacob Eliot born 28th day 10th month.
 John of Thomas & Mary Fairewether born in the 8th month.
 Sarah of Richard & Grace Gridley born 14th day 2d month.
 Mary of William & ——— Pell born 30th — 4th month.
 John of Edward & Elizabeth Rainsford born 30th — 4th month.

FIRST CHURCH.

Mary of William Coddington	2 day 1 mo.
Mary of Thomas French	2 day 1 mo.
Thomas of Samuel Dudley, grandchild to our brother John Winthrop Gov.	9 day 1 mo.
John of Richard Palsgrave	9 day 1 mo.
John of Richard Bulgar	20 day 2 mo.
Sarah of William Browne	11 day 3 mo.
Sarah of Richard Grydley	1 day 4 mo.
Sarah of John Winthrop. the Elder	29 day 4 mo.

¹ Not called "our brother," *i.e.*, not member of this Church. — W. S. A.

John of Edward Ransford	27 day 5 mo.
John of Edward Hutchinson the Elder	31 day 6 mo.
Mary of William Balstone	14 day 7 mo.
Mary of William Pell	14 day 7 mo.
John of Thomas Fairewether	21 day 7 mo.
James of Robert Houlton	5 day 8 mo.
Elyakim son of Thomas Wardall	23 day 9 mo.
Samuel of Oliver Mellowes	7 day 10 mo.
Jeremiah of Waters Merry	15 day 10 mo.
John of Jacob Elyott	28 day 10 mo.
Hannah of Richard Brockett	4 day 11 mo.
Barnabas son of Richard Brenton	24 day 11 mo.
Lydia of James Pennyman	22 day 12 mo.
Daniel of Lettysse & Mathias Button	22 day 12 mo.

1635.

TOWN.

Samuel son of Wm & Elisabeth Aspinwall born 30th day of 7th month.
 Elizabeth daughter of Miles & Mary Awkley born the ——
 Grace of Wm & Anne Beamsley born 10th day of 7 month.
 Sarahjah daught. of John & Sarah Cotton born 12 day 7th month.
 Abigail daught of Wm & Mary Davies born 31th day 8th month.
 Thomas of —— Dineley born 9th day 11th month.
 Rebecca of Walter & Rebecca Merry born 11th month & died soon after.
 Hannah of John & Hannah Newgate born 1st day 6th month.
 John of John & Margaret Odlin born 30th day 4th month. and died soon after.
 Anne wife of Mr Thomas Oliver died 3rd month.
 Joanna of Nicholas & Anne Parker born 1st day 4th month.
 Thomas of John & —— Parker born 2d — 8th month
 Lazarus of Philemon & Susan Pormort born 28th — 12th month.
 Elizabeth of Richard & Elizabeth Sherman born 1st — 10th month.
 Elishua of Robert & —— Walker born 14th — 12th month.
 Shoreborne son of William & Patience Wilson born 6th — 6th month.
 Alexander of Alexander & Elizabeth Baker born 15th — 11th month.
 Judith wife of Richard Tapping died.
 Hannah of Angel & Catherine Hollard born 8th — 8th month.
 Peleg of William & Mary Salter born 15th — 1st month.
 John of Elizabeth & William Wen born 22nd — 9th month.
 Eliakim of Thomas & Elizabeth Werdall born 9th month.

FIRST CHURCH.

Charity daugr of Jonn Baker	12 day 2 mo.
Hananeel daugr of John Coggeshall	3 day 3 mo.
Jabez son of Will ^m Cheesebrough	3 day 3 mo.
Samuel of John Sampford	21 day 4 mo.
John of Samuel Dudley grandchild to our br. John Winthrop the Elder	28 day 4 mo.
John of John Audley	28 day 4 mo.
Freegrace son of Edward Bendall	5 day 5 mo.
Hannah of John Newgate	19 day 5 mo.
Jonathan of John Mylles	30 day 6 mo.
Shoreborne son of William Wilson	13 day 7 mo.
Sariah of John Cotton Teacher	20 day 7 mo.
Samuel of William Aspinall	20 day 7 mo.
Grace of William Beamsley	20 day 7 mo.
Mary of Thomas Alcocke	8 day 9 mo.
Samuel of William Dyer	20 day 10 mo.
Edward of Edward Gibbon	3 day 1 mo.
Mary of George Ruggle	3 day 11 mo.
Constance daugr of Richard Fairebancke	10 day 11 mo.
Benjamin of John Mylam	10 day 11 mo.

Lydia of Richard Palsgrave	17 day 11 mo.
Thomas of Will ^m Dyneley	17 day 11 mo.
Mehetabel of Will ^m Balstone	24 day 11 mo.
Elizabeth of John Underhill	14 day 12 mo.
Elishuah daug ^r of Robert Walker	28 day 12 mo.

1636.

TOWN.

Hannah of Edmund & Martha Jackson born 1st day 1st month.
 Ethlan son of Wm & Elisabeth Aspinwall born 1st day of 1st month.
 Free Grace son of Edw: & Anne Bendall born 30th day of 7th month.
 Elhanan son of Rich: & Elizabeth Cooke born 30th day 4th month & died

Nov:

Annah of John Coggan born 7th day 9th month.
 Thomas son of Wm & Mary Davies born 15th day 1st month.
 Eleaser son of Nathaniel & Elizabeth Eaton born 22 day 7th month.
 Hannah of Jacob Eliot born 29th day 11th month.
 Mary of Thomas & Mary Fairewether born in 9th month.
 Zachary of Benjamin & Anne Gillom born 30th day 7th month.
 Hannah of Richard & Grace Gridley born 10th day 2d month.
 Elizabeth of George & Alice Griggs born 14th day 3rd month.
 Abraham of Thomas & Hannah Hawkins born 1st day 11th month.
 Joseph of Richard & Joan Hogge born 10th month.
 Jonathan of Edward & Elizabeth Rainsford born 8th month.
 Elizabeth of Mr John & Elizabeth Winthrope born 24th—5th month.
 Sarah of Henry & Sarah Linn born 20th—6th month.

FIRST CHURCH.

Martha of Oliver Mellowes	6 day 1 mo.
Lazarus of Philemon Pormort	6 day 1 mo.
Zuryell daug ^r of Will ^m Hutchinson	13 day 1 mo.
Hannah of Richard Grydley	24 day 2 mo.
Bedaiah son of William Coddington	1 day 3 mo.
Ezekiel of James Everill	15 day 3 mo.
Elizabeth of James Fitch	15 day 3 mo.
Elyezar of Will ^m Townsend	12 day 4 mo.
Elizabeth of John Winthrop the younger	3 day 5 mo.
John of Thomas Matson	10 day 5 mo.
Elhanan son of Richard Cooke	17 day 5 mo.
Wayte daug ^r of John Coggeshall	11 day 7 mo.
Eleazar son of Nath ^l Heaton	2 day 8 mo.
Jonathan of Edward Ransford	23 day 8 mo.
Zechariah son of Benja. Gillam	23 day 8 mo.
Hannah of Anne & John Cogan	6 day 9 mo.
Rebecca of Waters Merry	18 day 10 mo.
John of James Pennyman	15 day 11 mo.
Thomas of Jane & John Parker	22 day 11 mo.
Hannah of Jacob Elyott	29 day 11 mo.

1637.

TOWN.

Returne daughter of Richard & Grace Gridley born 14th day 1st month.
 Eliakim son of Thomas & Alice Marshall born 1st day 1st month.
 Mercie son of Wm & Anne Beamsley born 9th day (10th) month.
 Anne wife of Edw: Bendall died 25th day (10th) month
 Joseph Blanchard died in the 10th month.
 Thomas of George & Anne Burden born & buried 1 day (2d) month.
 Thomas of Thomas & Anne Buttolph born 12 day (6th) month.
 Elisha of Richard & Elizabeth Cooke born 16th day 7th month.

Elizabeth of John & Sarah Cotton born 9th day 10th month.
 Abigail of ——— Dineley born 10th month.
 Sarah of George & Alice Griggs born 15th day 3d month.
 Sarah of Hugh & Elizabeth Gunnison born 14th day 12th month.
 Zuriell son of Ralph Mason born 14th day 2nd month.
 Jeremy son of Walter & Rebecca Merry born 11th month & died soon after.
 Hannah of John & Margaret Odlin born 9th day 12th month & died soon after.
 Daniel of Mr. Thomas Oliver died 4th month.
 Another born & died 14th day 4th month.¹
 Elishua daughter of Arthur & Elizabeth Perry born 20th December.
 John of David & Sarah Phippeni born and died 5th month.
 Joshua of Robert & Elizabeth Rice born 14th — 2nd month.
 Philip of Samuel & Grace Sherman born 31st — 10th month.
 Mary of John & Elizabeth Spurre born 20th — 1st month.
 Elizabeth of William & Elizabeth Ting born 6th — 12th month.
 Moses of Gamaliel & Grace Waite born 4th month.
 Zachary of Robert & ——— Walker born 15th — 7th month.
 Meribah daughter of William & Alice Werdall born 14th — 3rd month.
 Jonathan of Thomas & Rebecca Wheeler born 20th — 8th month.
 Mary of William & Patience Wilson born 11th — 11th month.
 John of Robert & Joan Wing born 22nd 5th month.
 Mary of Richard and Mary Woodhouse born & buried 11th month.
 Samuel of Alexander & Elizabeth Baker born 16th — 11th month.
 Job of Job & Sarah Judkins born 10th — 3rd mo. died 24th — 3rd month.
 John of Henry & Alice Stevens born 10th — 7th month.
 Martha of Thomas & Elizabeth Werdall born 6th month.

FIRST CHURCH.

Abiah daut ^r of Thomas Grubbe & it dyed that night	5 day	1 mo.
Deliverance daut ^r of Robert Potter member of Rocksbury Ch.	5 day	1 mo.
Mary daut ^r of Thos. Faireweather	5 day	1 mo.
Hannah of Edmund Jackson	5 day	1 mo.
Ethlannah son of Will ^m Aspenall	12 day	1 mo.
Edward of Edward Gibbon	26 day	1 mo.
Jabez of Robert Houlton	2 day	2 mo.
Meribah of Willam Balstone	9 day	2 mo.
Joshua of Robert Royce	16 day	2 mo.
Peter & } of Richard Brockett	7 day	3 mo.
John		
Patience of Will ^m Townsend	28 day	3 mo.
Elisha of Will ^m Cheesbrough	4 day	4 mo.
Mary of John Wheelwright	25 day	4 mo.
Meribah of Will ^m Wardall	25 day	4 mo.
Jonathan of Elizabeth & Will ^m Tuttell	2 day	5 mo.
Bedaiah son of John Coggeshall	30 day	5 mo.
Ichabod of Edward Hutchinson the Elder	3 day	7 mo.
Martha of Thomas Wardall	3 day	7 mo.
Moses of Gamaliel Wayte	3 day	7 mo.
Hannah daut ^r Tho ^s Hasard	10 day	7 mo.
Zacharias son of Rob ^t Walker	1 day	8 mo.
Abigail of William Dyneley	8 day	8 mo.
Hannah of Rachel & Francis Newcombe	15 day	8 mo.
Elishua daut ^r of Edward Hutchinson the younger	5 day	9 mo.
Elishua son of Richard Cooke	5 day	9 mo.
Jonathan of Thomas Wheeler	12 day	9 mo.
Marie of Alexander Winchester	19 day	9 mo.
Elizabeth of John Cotton Teacher	10 day	10 mo.
Elizabeth of Thomas Alcocke	10 day	10 mo.
Mercie of William Beamesley	10 day	10 mo.
Eliphah dau. of John Sanford	10 day	10 mo.
Stephen of Elizabeth & Robert Meares	10 day	10 mo.

¹ This refers to a child of Nicholas and Anne Parker. — W. S. A.

John of George Ruggle
Marie of William Wilson

31 day 10 mo.
21 day 11 mo.

1638.

TOWN.

Hannah of Valentine & Frances Hill born 17th day 1st month.
Elizabeth of John & Jane Lugg born 7th day 1st month.
Moses of Gamaliel & Grace Waite died 1st month.
Miles son of Miles & Mary Awkley was born 1st day of 2nd month.
John son of Thomas Bell. born & died 24 day (6th) month.
John Bill died the 10th month.
Elisha of George & Anne Burden born the 4 day (12th) month.
Grace wife of John Button died 9th day 1st month.
Deliverance daugtr to Wm Courser born 4th day 1st month.
Thomas son of Wm & Mary Davies died 24th day 5th month.
Aaron of Wm & Mary Davies born 20th day 5th month.
Thomas of Wm Davies died 5th month.
Fathergone son of ——— Dinely born 25th day 10th month.
Hannah of Madit & Joan English born 2d day 1st month.¹
Mary of Thomas & Mary Fairewether died in 9th month.
Thomas of Thomas & Mary Fairewether died in 6th month.
Elizabeth of Wm & Alice Francklin born 3rd day 8th month.
Hannah of Benjamin & Anne Gillom born 9th month & died soon after.
John Goordley. servt to Rich. Tuttle died 10th month.
William of George Griggs buried in 10th month.
John of Thomas Grubb born the 6th month.
John of Edmund and Martha Jackson born 20th day 8th month.
John of Matthias & Anne Ijons born 16th day 7th month.
John of William & Elizabeth Winborne born 21st day 7th month.
Joseph of Francis and Alice Loyall born 10th day 8th month.
Stephen of Robert & Elizabeth Meere born 25th day 10th month.
Constance of John & Christian Milom born 25th day 10th month.
John of John & Elizabeth Oliver born 21st day 9th month.
Joseph of Richard & Anne Parker born 1st day 6th month & died 30th day 9th month.
Noah of John & ——— Parker born 3d — 2d mo.
Nathaniel of William & ——— Pell born 10th — 6th month & died 9th month.
Anna of Philemon & Susan Pormort born 5th — 2nd month.
Ranis daughter of Edward & Elizabeth Rainsford born 4th — 4th month.
Abijah of Thomas & Faith Savage born 1st — 6th month.
Nathaniel of Robert & Elizabeth Scott born 6th month.
Melatiah son of Thomas & Milcah Snow born 30th — 7th month.
Hannah of Miles & Sarah Terne born 8th month.
David of David & Susanna Sellick born 11th — 10th month.
Isaac of Richard & Elizabeth Waite born 9th — 6th month. & died 21st — 6th month.
Grace of Gamaliel & Grace Waite born 10th — 11th month.
Ruth of Nathaniel & Mary Williams born ———.
Mary of Richard and Mary Woodhouse born 14th — 11th month.
Ffitz-John Son of Mr John & Elizabeth Winthrop born 14th — 1st month.
Samuel of Job & Sarah Judkins born 27th — 9th month.
Elizabeth of Angel & Catherine Hollard born 5th month.
Elizabeth of Henry & Sarah Linn born 27th — 1st month.
John of John & Elizabeth Oliver born 21st — 5th month.

FIRST CHURCH.

Hannah of John Awdley	4 day 1 mo.
Deliverance daut ^r of William Coursar	4 day 1 mo.
Sarah of Hugh Gunnyson	4 day 1 mo.

¹ Only found in second MS., the bottom of leaf of oldest MS. being worn away. — W. S. A.

Peleg of William Salter	25 day 1 mo.
Noah of Jane & John Parker	8 day 2 mo.
Returne daut ^r of Rich ^d Gridley	8 day 2 mo.
Marie of Henry Elkyn	8 day 2 mo.
Eliakim son of Thomas Marshall	15 day 2 mo.
Anna of Philemon Pormort	15 day 2 mo.
Nathaniel of William Pell	29 day 2 mo.
Anna of Christopher Marshall	13 day 3 mo.
James of John Milles	3 day 4 mo.
Ragnis daut ^r of Edward Ransford	10 day 4 mo.
Bethiah daut ^r of Richard Palsgrave	8 day 5 mo.
John of John Olyver	29 day 5 mo.
Abiah son of Thomas Savage	12 day 6 mo.
Nathaniel of Robert Scott	19 day 6 mo.
Mary of Oliver Mellowes	26 day 6 mo.
Restored daut ^r of Zachariah Bosworth	26 day 6 mo.
John of Thomas Grubbe	2 day 7 mo.
Constance of John Mylam	16 day 7 mo.
John of Matthew Ines	30 day 7 mo.
Metsathiell son of Edward Gibbon	7 day 8 mo.
John of Edmund Jackson	28 day 8 mo.
Coneniah daut ^r of James Everill	4 day 9 mo.
Deliverance of Henry Sandys	6 day 11 mo.
Fathergone son of William Dyneley our gone brother	6 day 11 mo.
John of Richard Swanne	13 day 11 mo.
Grace of Gamaliel Wayte	20 day 11 mo.
Elisha of George Burdon	3 day 12 mo.
Esther of Griffyn Bowen	10 day 12 mo.
Mary of Martha Bushnall widow	17 day 12 mo.

1639.

TOWN.

Seth of Arthur & Elizabeth Perry born 7th — 1st month.
 Dorcas daughter of Wm & Elizabeth Aspinwall born 14th day of 12th month.
 John of George & Anna Balden born 25th day of 8th month.
 Wm Barrell died 20th day of 6th month.
 Mary of Nicholas & Anne Baxter born 12th month.
 Mary the wife of Alexander Beck died 2nd day 3rd month.
 Reforme son of Edw: & Marah Bendall born 18 day (8th) month.
 Ruth of Nathaniel & Alice Bishop born 14 day (2d) month.
 John of Thom: & Anne Buttolph born 28 day (12th) month.
 Lidia of John Coggan born 14 day 5th month.
 John of John & Sarah Cotton born 15 day 1st month.
 Cornelius of Thomas Clarke born 10 month.
 Joannah of Wm Courser born 9th day 12th month.
 John of John & Alice Crabtree born 25th day 8th month.
 John Cramwell died ———¹
 Aaron of Wm & Mary Davies died the 31st day 8 month.
 Abigail daut^r of Wm & Mary Davies died 24th day 12th month.
 Jacob of James & Joanna Davies born 11th day 5th month.
 Samuel of Francis & Mary East born 11 day 1st month.
 Nathaniel of Nathaniel & Elizabeth Eaton born 31st day 6th month.
 Abigail of Jacob Eliot born 7th day 2d month.
 Mary of Daniel Fairefield buried 5th month.¹
 Elizabeth of Thomas & Margaret Fowle born 14th day 1st month.
 John of Arthur & Agnes Gill born 16 th day 9th month.
 Hannah of Benjamin & Anne Gillom born the 11th month.
 Mary of Samuel & Francis Greames born 27th day 2d month.
 Sarah of Abraham & Elizabeth Hagborne born 24th day of 10th month.
 John of George & Jane Harwood, born 4th day. 5th month.

¹ Only found in second MS., the bottom of leaf of oldest MS. being worn away. — W. S. A.

Sarah, of John & Abigail Jackson born 15th day 6th month.
 Samuel of Thomas & Joan Joy born 26th day. 12th month.
 Hannah of John & Anne Kenrick born 9th day 12th month.
 Joseph of Francis & Alice Loyall died 10th day 12th month.
 Benjamin of Francis & Alice Loyall 1st day 11th month.
 Benjamin of John & Christian Milom died 15th day 12th month.
 Dorothy wife of Thomas Munt died 12th month 28th day.
 Elizabeth of John & Elizabeth Oliver born 28th day 12th month.
 Elishua daughter of Arthur & Elizabeth Perry died April 10th.
 Thomas of Thomas & Katherine Painter born 4th — 3rd month & died 36th
 — 7th mo.
 William of Thomas & Katherine Painter died 30th — 7th month.
 Nathaniel of Robert & Elizabeth Rice born 1st — 2nd month.
 Thomas of Thomas & Joan Scotto born 11th month.
 Martha of Samuel & Grace Sherman born 5th — 7th month.
 Anna of William & Elizabeth Ting born 6th — 11th month.
 Ephraim of Robert & Penelope Turner born 13th — 10th. month.
 Hopestill daughter of John & Mary Vyall born 14th — 6th month.
 Returne son of Richard & Elizabeth Waite born 8th — 5th month.
 John of Robert & ——— Walker born 22nd — 7th month.
 Vsal son of William & Alice Werdall born 7th — 2nd month.
 John of William & Patience Wilson born 11th month.
 Hannah of Robert & Joan Wing born 14th — 12th month.
 Luce daughter of John & Elizabeth Winthrop born 28th — 11th month.
 Joseph of George & Jane Kenrick born 12th month.
 Ephraim of Henry & Sarah Linn born 16th — 11th month.
 John of John & Elizabeth Oliver died 27th — 1st month.
 Elizabeth of John & Elizabeth Oliver born 28th — 12th month.
 Mary of Peter & Margaret Henrickson born 21st — 1st month.
 Elizabeth of William & Mary Salter born 16th — 2nd month.
 Benjamin of Thomas & Elizabeth Werdall born 12th month.
 Job of Henry & Mary Walton born 29th — 7th month.

FIRST CHURCH.

Elizabeth of William Tinge,	10 day	1 mo.
Hannah of Valentine Hill,	17 day	1 mo.
Nathaniel of Robert Royce,	24 day	1 mo.
Elizabeth of Jane & John Lugge,	24 day	1 mo.
David of Elizabeth & William Tuttell.	7 day	2 mo.
Abigail of Jacob Elyott.	7 day	2 mo.
John of Anthony Harker	14 day	2 mo.
Mary of John Spour	21 day	2 mo.
Hannah of Sarah & Myles Tarne	21 day	2 mo.
Joseph of Thomas Mekyns the younger	5 day	3 mo.
Eliphalet of Anne & Thomas Hett	26 day	3 mo.
Ruth of Nathaniel Willyams, aged about 1 year	2 day	4 mo.
Lydia of Anne & John Cogan	14 day	5 mo.
Returne son of Rich ^d & Eliz ^b . Wayte member of Newberry Ch.	14 day	5 mo.
Samuel of Samuel Dudley, grandchild to our br. John Win-		
thorp the Elder	11 day	6 mo.
John of John Hurde,	18 day	6 mo.
Joseph of Richard Hogge, aged about 1 yr 8 mos.	25 day	6 mo.
Nathaniel of Nathaniel Heaton,	1 day	7 mo.
Joseph of James Pennyman	29 day	7 mo.
John of Robert Walker	29 day	7 mo.
Thomas of Thomas Buttall	29 day	7 mo.
Joseph of Francis Lysle, aged about 1 year	6 day	8 mo.
Rachel of Richard Brockett	3 day	9 mo.
Elizabeth of Edward Hutchinson the younger	10 day	9 mo.
Reforme dau ^r . of Edward Bendall	24 day	9 mo.
Zacheus son of Rich ^d . Fairebancke	8 day	10 mo.
Thomas of Thomas Scottowe	8 day	10 mo.
Ephraim of Robert Turnor	22 day	10 mo.

Benjamin of Francis Lysle	5 day 11 mo.
Anna of William Tinge	12 day 11 mo.
Anna of Benjamin Gillam	12 day 11 mo.
Luse daut ^r of John Winthropp the younger	2 day 12 mo.
Jonathan of Nicholas Parker from the Ch. of Roxbury	2 day 12 mo.
John of William Wilson	9 day 12 mo.
Hannah of John Kenricke	9 day 12 mo.
Johanna of William Courser	9 day 12 mo.

1640.

TOWN.

Mary of Jeremy & Esther Houtchin born 18th day 1st month.
 Thomas of Edmund & Martha Jackson born 1st day 1st month.
 Benjamin of Francis & Alice Loyall buried 1st day 1st month.
 Hannah of Edward & Mary Ting born 7th — 1st month.
 Elisha son of John and Margaret Odlin born 1st day of 5th month.
 Samuel of Wm & Anne Beamsley born the 31st day 10th month.
 Habbakuk son of Wm & Anne Beamsley born the 31st day 10th month.
 Ephraim son of Alexander & Elizabeth Beck born 1st day (4th) month.
 Deliverance Beck born 1 day (4th) month.
 Strange Beck born 1st day (4th) month.
 Joan daughter of Thomas Bell born and died 4th day (1st) month.
 Nehemiah son of Nehemiah & Hannah Bourne born 10 day (4th) month.
 Elizabeth of Zaccheus & Anne Bosworth born 24th day (5th) month.
 Jonathan of Wm & Goodith Copp born 23 day 6th month.
 Samuel of Richard and Alice Croychley born 25th day 10th month.¹
 John of Wm Davies died 20th day 1st month.
 Sarah of Edmund & Sarah Dennis born 6th month.
 Elizabeth of Daniel & Elizabeth Fairefield born 30th day 8th month.¹
 Beleeve son of Richard & Grace Gridley born 1st day 3rd month.
 Elizabeth Griggs aged 4 years died in 3rd month.
 Elizabeth of Hugh and Elizabeth Gunnison born 25th day 2d month.
 Abigail of William & Joane Harvie born 25th day 2d month.
 Deliverance son of George Harwood died 12th month.
 Hannah of Thomas & Hannah Hawkins born 20th day 11th month.
 Job son of Thomas & Hannah Hawkins born 20th day 11th month.
 John of Valentine & Francis Hill born & died 1st day 7th month.
 John of Robert and Elizabeth Howen born 4th month.
 Elizabeth of Francis & Mary Hudson born 13th day 8th month.
 George Hunne died 4th month.
 Samuel of Edmund & Susan Jacklin born 19th day 2d month.
 Mary of James & Margaret Kade born 4th day 8th month.
 Elizabeth of William & Elizabeth Kirby born 20th day 10th month.
 Hudson son of John Leverit born 3rd day 3rd month.
 Mary of Francis & Alice Loyall born 14th day 12th month.
 John of Ralph Mason born 15th day 8th month.
 John of John & Christian Milom born 18th day 7th month.
 Elizabeth of Benjamin & Elizabeth Negoos born 14th day 2nd month.
 Elisha of John & Margaret Odlin born 1st day 5th month.
 Jonathan son of Nicolas & Anne Parker born 1st day 12th month.
 Elizabeth of Thomas & Katherine Painter died 24th — 2nd month.
 Richard Tuttle died 8th — 3rd month.
 Moses of Gamaliel & Grace Waite born 7th month.
 Joseph of Thomas & Rebecca Wheeler born 15th — 3rd month.
 Elizabeth of Nathaniel & Mary Williams born 21st — 8th month.
 John of Alexander & Elizabeth Baker born 20th — 4th month.
 James of Henry & Alice Stevens born 10th — 2nd month.
 Hannah of William & — Pell born 14th — 11th month.
 John of David & Sarah Phippeni born and died 5th month.

¹ Only found in second MS., the bottom of leaf of oldest MS. being worn away. — W. S. A.

Pedajah son of Philemon & Susan Pormort born 3rd — 4th month.
 Margery wife of Richard Sanford died.
 Thomas of Thomas & Faith Savage born 28th — 3rd month.
 Elizabeth of Robert & Elizabeth Scott born 10 — 10th month.
 Samuel of John & Grace Seaberry born 10th — 10th month.
 Hannah of William & Anne Semond born 7th month.
 Mary of Walter & Mary Sinet born 19th — 9th month.
 John of John & Dorothy Synderland born 10th month.
 Sarah of Robert & Penelope Turner born 11th — 1st month.

FIRST CHURCH.

John of Thomas Buttall	1 day	1 mo.
Elizabeth of John Olyvar	8 day	1 mo.
Philip of Samuel Sherman, born 31 st day 10 mo. 1637	8 day	1 mo.
Martha of Samuel Sherman born 5 th day 7 th mo. 1639	8 day	1 mo.
Seth of Arthur Purve	15 day	1 mo.
Samuel of Francis East	15 day	1 mo.
John of John Cotton, our Teacher	22 day	1 mo.
Elkanah son of Richard Cooke	12 day	2 mo.
Elizabeth of Hugh Gunnyson	19 day	2 mo.
Samuel of Edmund Jacklyn	26 day	2 mo.
Elizabeth of William Salter	26 day	2 mo.
Beleive son of Richard Gridley	3 day	3 mo.
Hudson son of John Leveritt. aged 8 days	10 day	3 mo.
Joseph of Thomas Wheelar	10 day	3 mo.
Thomas of Thomas Savage	17 day	3 mo.
Ephraim & Deliverance of Alexander Becke	7 day	4 mo.
Elisha of John Audlyn	5 day	5 mo.
Naomi dautr of William Copp	5 day	5 mo.
Cornelius of Thomas Clarke	19 day	5 mo.
Elizabeth of Zachariah Bosworth	26 day	5 mo.
Isaac of Johanna & Isaac Willey	2 day	6 mo.
Sarah of Edward Dennys	9 day	6 mo.
Benjamin of Anthony Stoddard. aged 11 days	23 day	6 mo.
Jonathan of William Copp	23 day	6 mo.
Moses of Gamaliel Wayte	23 day	6 mo.
Hannah of Maudett Inglys born. 2 ^d 1 st mo. 1639	6 day	7 mo.
Hannah of Marie & Edward Tinge, born 7 ^d 1 st mo. 1640	6 day	7 mo.
John of John Mylam	13 day	7 mo.
Thomas of Thomas Painter, born 4 th day 3 rd mo. 1639	13 day	7 mo.
Sarah of Abigail & John Jackson born about middle 6 th mo. 1639	13 day	7 mo.
Hannah of John Hurde	20 day	7 mo.
Elizabeth of Nathaniel Willyams	18 day	8 mo.
Elizabeth of Robert Scott. aged 13 days	13 day	10 mo.
Hannah of William Pell. aged 7 days old	20 day	10 mo.
Samuel & Habakuk, of William Beamsley aged about 14 days	7 day	12 mo.
Elizabeth of Margaret & Thomas Fowle	14 day	12 mo.
Mary of Francis Lysle, aged, about 4 days	14 day	12 mo.

1641.

TOWN.

Samuel of Wm & Anne Beamsley died the 2nd month.
 Habbakuk son of Wm & Anne Beamsley died the 2d month.
 Tabitha of Tho: Bell born 24th day (1st) month.
 Hopefor son of Edw: & Marah Bendall born 7th day (8th) month.
 Hannah of Nehemiah & Hannah Bourne born 10th day (9th) month.
 Samuel of Zaccheus & Anne Bosworth born 4th day (1st) month.
 Ezekiel of George & Anne Burden born 28 day 1st month.
 Mary of Richard & Anne Carter born 3rd day 5th month.
 Sarah daughter of John & Joan Cole born 15 day (11th month).
 Elkanah son of Richard & Elisabeth Cooke born 14 day 2d month.

Rebecca of Wm & Goodith Cop born 6 day 3d month.
 Mariah of John & Sarah Cotton 16th day 12th month.
 Deliverance of John & Alice Crabtree born 3d day 7th month.
 Susannah of Jacob Eliot born 22 day 5th month.
 John of Thomas & Margaret Fowle born 1st day 5th month.
 John of Edward & Margaret Gibbons born 30th day 1st month.
 Elizabeth of Benjamin & Anne Gillom born the 11th month.
 Samuel of Thomas Grub — born 5th day 10th month.
 Thomas of William & Joane Harvie born 18th day 10th month.
 Elizabeth of Valentine & Francis Hill born 12th day 10th month.
 Mary of Richard Hogge born ———
 Hannah of Wm & Anne Hudson born 16th day 2d month & died 20th day 3d month.
 Richard of William & Susan Hudson died 26th day 8th month.
 Abigail of John & Abigail Jackson born 24th day 6th month.
 John of Thomas & Joan Joy born 10th day 8th month.
 John of John & Anne Kenrick born 3rd day 8th month.
 John of John Leverit born 1st day 4th month.
 Samuel of Robert & Elizabeth Meere born 7th day 4th month.
 Hope son of Mingo. a neger born 19th day 3rd month.
 John of Henry Messenger born 25th day 1st month.
 Benjamin of Benjamin & Elizabeth Negoos born 7th month.
 John of John & Margaret Odlin born 3rd day 12th month.
 Hannah of John & Elizabeth Oliver born 3rd day 1st month.
 Abiel son of Nicholas & Anne Parker born 15th day 11th month.
 Sarah of Richard & Anne Parker born 8th day 5th month.
 Abigail of Bartholomew & ——— Pasmer born 4th month.
 William Pierce died 13th — 5 month.
 Katherine wife of Thomas Painter died.
 Nathan of Edward & Elizabeth Rainsford born 6th month.
 Joshua of Joshua & Lydia Scotto born 30th — 7th month. & soon after buried.
 Thomas of Thomas & Johan Scotto born 4th month & then buried.
 Jonathan of David & Susanna Sellick born 20th — 3rd month.
 Deliverance of Miles & Sarah Terne born 30th — 7th month.
 Jane of Evan & Jane Thomas born 16th — 3rd month.
 Bethiah daughter of William & Elizabeth Ting born 17th — 3rd month.
 Mary of Edward & Mary Ting born 17th — 2nd month.
 Hannah of William & Hannah Townsend born 4th — 2nd month.
 Mary of John & Mary Vyall born 30th — 9th month.
 Hannah of Richard & Elizabeth Waite born 14th — 7th month.
 Moses of Gamaliel & Grace Waite died 7th month.
 Samuel of Gamaliel & Grace Waite born. ———.
 Sarah of Robert & ——— Walker born 15th 9th month.
 Joseph of Robert & — Williams born 5th month.
 Waite-still son of John & Elizabeth Winthrop born 27th — 12th month.
 John of Richard & Mary Woodhouse born 9th — 2nd month.
 Joseph of Robert and Rachel Woodward born 24th — 8th month.
 Job son of Job & Sarah Judkins born 30th — 4th month & died 4th month.
 Thomas of Angel & Catherine Hollard born 7th — 3rd month & lived 20 weeks.
 Hannah of John & Elizabeth Oliver born 3rd — 1st month.

FIRST CHURCH.

Thomas of Edmund Jackson	7 day	1 mo.
Sarah of Robert Turner	14 day	1 mo.
Tabetha of Anne & Thomas Bell	4 day	2 mo.
Hannah of William Townsend	11 day	2 mo.
Jonathan son & } of Thomas &	11 day	2 mo.
Eunice dau ^r } Elizabeth Tart, member of Ch. of Sittuate.		
John of Edward Gibbon	18 day	2 mo.
Elizabeth of Matthew Ines	18 day	2 mo.
Abigail of Griffyn Bowen	18 day	2 mo.
Ezekiel of George Burdon	25 day	2 mo.

Hannah of William Hudson the younger	25 day	2 mo.
John of Sarah & Henry Messinger	25 day	2 mo.
Mary of Edward Tinge	2 day	3 mo.
Hopestill dau. of John Vvall	9 day	3 mo.
Jane of Evan Thomas	16 day	3 mo.
Bathiah of William Tinge	23 day	3 mo.
Samuel of Eliz ^b . & Robert Mears	13 day	4 mo.
John of Robert Howyn	20 day	4 mo.
John of John Leveritt, aged about 4 days	4 day	5 mo.
John of Margaret & Thomas Fowle. aged about 10 days	11 day	5 mo.
Sarah of Richard Parker aged 2 days	11 day	5 mo.
Susanna of Jacob Elyott. aged about 6 days	22 day	5 mo.
Mary of Richard Hogge aged about 6 days	22 day	5 mo.
Nathan of Edward Ransford. aged about 8 days	1 day	6 mo.
Samuel & } of Sarah & Job Judkyn.	15 day	6 mo.
Job }	15 day	6 mo.
Abraham of Hannah & Thomas Hawkins. aged about 4 yrs. 30 wks	22 day	6 mo.
Hannah dau. } of Hannah & Thomas, aged about 30 wks	22 day	6 mo.
Job son, } Hawkins aged about 30 wks	22 day	6 mo.
Abigail of Abigail & John Jackson aged about 5 days	29 day	6 mo.
Hannah of Richard Wayte, aged about 6 days	12 day	7 mo.
Melita of Thomas Snow, aged about 3 years	12 day	7 mo.
Deliverance of Sarah & Myles Tarne aged about 8 days	19 day	7 mo.
Samuel of Johanna & Thomas Jay, aged about 1 yr. 7 mos	19 day	7 mo.
Elizabeth of Wentworth Day aged about 8 days	26 day	7 mo.
Elizabeth of Henry Shrimpton. aged 10 days	3 day	8 mo.
Elizabeth of James Everill aged 3 days	3 day	8 mo.
John of John Kenricke aged 2 days	3 day	8 mo.
John of Joan & Thomas Jay. aged about 8 days	17 day	8 mo.
Mary of Anthony Harker aged about 5 days	17 day	8 mo.
Hoptfor son of Edward Bendall. aged about 2 days	31 day	8 mo.
Samuel of Gamaliel Wayt. aged about 7 days	7 day	9 mo.
Joseph of Rachel & Robert Woodward	7 day	9 mo.
Hannah of Nehemiah Burne from the Ch. of Dorchester aged about 3 days	14 day	9 mo.
Elisha of Edward Hutchinson the younger. aged about 13 days	28 day	9 mo.
Sarah of Robert Walker aged about 6 days	28 day	9 mo.
Elihu of William Wardall	5 day	10 mo.
Mary of John Vyoll	5 day	10 mo.
Samuel of Thomas Grubb. aged about 8 days	12 day	10 mo.
Elizabeth of Valentine Hill. aged about 6 days	19 day	10 mo.
Nathaniel of Samuel Sherman. aged about 12 days	19 day	10 mo.
Elizabeth of Benjamin Gillam, aged 4 days	9 day	11 mo.
John of Edward Bates, aged about 14 days	23 day	11 mo.
John of John Audlyn, aged about 7 days	13 day	12 mo.
Maria of John Cotton our teacher aged about 5 days	20 day	12 mo.

1642.

TOWN.

Tremble son of Richard & Grace Gridley born 14th day 1st month.
 Joseph of Francis & Alice Loyall born 14th day 1st month.
 Nathaniel of Francis & Isabel Baker born 27 day of 1st month.
 Thomas of Thos Bell born 3 day (6th) month.
 Joseph of Nathaniel & Alice Bishopp. born 14 day (5th) month.
 Hannah of Wm Briggs born & buried 28 day (6th) month.
 Daniell of Wm Brisco died the 3 month.
 Abigail of Tho: & Anne Buttolph born 18 day (12th) month.
 Joseph of Richard & Elizabeth Cooke born 1st day 3d month.
 Jacob of Thomas Clark born in 3d month.
 John of Wm Courser born 8th day 3d month.
 Trine son of Wm & Mary Davies born 10th day 6th month.
 Josebeth dau. of James & Joanna Davies born 20 day 6 month.

Mary of Edmund & Sarah Dennis born 4th month.
 Elizabeth of Francis & Katherine Douse born 20 day 6 month.
 Mary of Francis & Mary East born 25 day 1st month.
 Deborah of Gabriel & Elizabeth Fish born 20th day 10th month.
 John of Ralph Greene born 22nd day 10th month.
 Isaac of Edmund & Katherine Grosse born 1st day 8th month.
 Deborah. of Hugh and Elizabeth Gunnison born in 8th month.
 Joseph of John & Prudence Guttridge born 1st day 8th month.
 Isaac of Abraham & Elizabeth Hagborne born 3rd day 8th month.
 Mehetabel of George & Elizabeth Halsall. born 15th day 9th month.
 Joanna of George & Jane Harwood born 10th day 10th month.
 Mary of George & Anne Hide born 3rd day 6th month.
 Israel of Robert & Elizabeth Howen was born ———
 Thomas of Thomas & Joan Joy born 3rd day 1st month ———
 Elizabeth of William & Elizabeth Kirby died 12th day 5th month.
 Samuel of Richard & Dinah Knight born 18th day 12th month.
 Jacob of John & Elizabeth Fernside born 28th day 5th month.
 Mary of John & Jane Lugg born 6th month.
 Eleasaph son of John & Christian Milom born 30th day 7th month.
 John of Arthur & Elizabeth Perry born 26th — 2nd month.
 Hannah of Peter & Alice Plaise born 20th — 11th month.
 Susan wife of Philemon Pormort died 29th — 10th month.
 Patience of Robert & Elizabeth Rice born 1st — 2nd month & buried 8th —
 2nd month.
 Nathaniel of Simon & ——— Rogers born 14th — 12th month.
 Mary of Robert & Elizabeth Scott born 28th — 12th month.
 Thomas of Thomas & Joan Scotto born 1st month & then buried.
 Elizabeth of John & Mary Seavorne born 21st — 8th month.
 Nathaniel of Samuel & Grace Sherman born 19th — 10th month.
 Elizabeth of Walter & Mary Sinet born 23rd — 4th month.
 Ebenezer of John & Elizabeth Spur born 3rd — 3rd month.
 Thomas of Thomas & Martha Stanberry born 15th — 8th month.
 John of Anthony & Mary Stanion born 16th — 5th month.
 Mary of John & Dorothy Synderland born 12th — 1st month.
 Doreas daughter of Evan & Jane Thomas born 5th — 12th month. & died
 the 28th — 12th mo.
 Deborah of Benjamin & Deborah Thwing born 17th — 3rd month & died 6th
 month.
 Mercie daughter of William & Elizabeth Ting born 13th — 11th month.
 Joshua of Alexander & Elizabeth Baker born 30th — 2nd month.
 Deborah of Cotton & Jane Flack buried 3rd month.
 Hester of William & Hester Hilyard born 25th — 1st month.
 Hephtzibah daughter of Angel & Catherine Hollard born 10th — 6th
 month.
 John of Peter & Margaret Henrickson born 22nd — 12th month.
 Mary of William and Mary Salter born 10th — 6th month.
 Jonathan of Edward & Mary Ting born 15th — 10th month.
 Peter of William & Hannah Townsend born 26th — 8th month.
 John of Robert & Penelope Turner born 1st — 10th month.
 Elihu son of William & Alice Werdall born 9th month.
 Nathaniel of Nathaniel & Mary Williams born 16th — 7th month.
 Jacob of Robert & Joan Wing born 31st — 5th month.
 Nathaniel of Robert & Rachel Woodward born ? 30th — 8th month.
 Samuel of Richard & Dinah Knight born 9th — 11th month.
 Joseph of Henry & Alice Stevens born 1st — 7th month.
 Hannah of William & Mary Briggs born 6th month.
 John of William & Joanna Francklin born 14th — 5th month.
 Sarah of Robert & Sarah Willis born 10th — 11th month.

FIRST CHURCH.

Waitstill of John Winthropp, the younger aged about 8 days	6 day	1 mo.
Hannah of John Oliver. aged about 4 days	6 day	1 mo.
Hannah of Johanna & Isaac Willey	6 day	1 mo.

Abiah son of Nicholas Parker, from the Ch. of Roxbury aged about 9 wks	27 day 1 mo.
Mary of Francis East, aged about 3 days	27 day 1 mo.
Mary of Samuel Grame, aged about 3 years	27 day 1 mo.
Thomas of Thomas Scottoe, aged 1 day	10 day 2 mo.
Joseph of Robert Williams	17 day 2 mo.
John of John Underhill aged about 13 days	24 day 2 mo.
John of Arthur Pury. aged about 3 days	1 day 3 mo.
Samuel of Richard Chichley	1 day 3 mo.
Joseph of Richard Cooke. aged about 6 days	8 day 3 mo.
Ebenezer of John Spurre aged about 6 days	8 day 3 mo.
John of William Courser aged about 4 days	8 day 3 mo.
Jacob of Thomas Clarke, aged about 5 days	22 day 3 mo.
Samuel of Sarah & John Seaberry, aged about 1 yr 6 mos	22 day 3 mo.
Strange of Alexander Becke, aged about 5 days	5 day 4 mo.
Marie of Edward Dennys. aged about 6 days	3 day 5 mo.
Elizabeth of Anne & John Stockbridge. member of Ch. of Situate aged about 2 yrs. 6 mos	10 day 5 mo.
John of John Hurd, aged about 4 days	17 day 5 mo.
Elizabeth of Francis Dowse aged about 2 days	17 day 5 mo.
John of Anthony Stanyon member of Ch. of Exeter aged about 6 days	24 day 5 mo.
Anne of Samuel Poole aged about 8 days	7 day 6 mo.
Thomas of Anne & Thomas Bell, aged about 9 days	7 day 6 mo.
Hannah of Richard Bellingham aged about 7 days	14 day 6 mo.
Israel of Robert Howin aged about 7 days	14 day 6 mo.
Phœbe of Phœbe & William Blanton aged about 5 days	21 day 6 mo.
Johoshabeath dau of James Davisse, aged about 8 days	28 day 6 mo.
Nathaniel of Nathaniel Williams, aged about 6 days	25 day 7 mo.
Deborah of Hugh Gunnyson, aged about 7 days	25 day 7 mo.
Mary of Jane & John Lugg, aged about 4 days	25 day 7 mo.
Isaac of Abraham Hackborne, aged about 7 days	2 day 8 mo.
Joseph of John Guttridge, aged about 8 days	2 day 8 mo.
Eleazer of John Mylam, aged about 4 days	2 day 8 mo.
John of Robert Winge, aged about 5 ys 3 mos	16 day 8 mo.
Hannah of Robert Winge, aged about 2 yrs. 8 mos	16 day 8 mo.
Jacob of Robert Winge, aged about 9 weeks	16 day 8 mo.
Peter of William Townsend, aged about 6 days	30 day 8 mo.
Mary of William Salter. aged about 3 days	30 day 8 mo.
Nathaniel of Rachel & Robert Woodward. aged about 4 days	30 day 8 mo.
Joseph of William Wilson aged about 5 days	13 day 9 mo.
John of Robert Turner aged about 4 days	4 day 10 mo.
Deborah of Gabriel Fish from the Ch. of Exeter. aged about 8 days	11 day 10 mo.
Jonathan of Edward Tinge aged about 4 days	18 day 10 mo.
Mehetabell of George Halsall from the Ch. of Dorchester aged about 13 days	1 day 11 mo.
Mercy of William Ting aged about 14 days	5 day 12 mo.
Dorcas of Evan Thomas, aged about 11 days	5 day 12 mo.
Thomas of Matthew Ines. aged about 18 days	5 day 12 mo.
Samuel of Richard Knight, aged about 4 days	12 day 12 mo.
Abigail of Thomas Buttall, aged about 2 days	19 day 12 mo.

1643.

TOWN.

Lidia daughter of Roger and Sarah Amadowne born 27th day of 2nd month.
 John of George & Anna Balden died the 6th month.
 George Barrell died 11th day of 7th month.
 Joseph & Benjamin sons of George & Anne Burden born 1 day 2d month &
 died in 2d mo.
 John of John and Joan Cole born 17 day 9th month.

John Cooke died 3d month.
 Ruth of Wm Copp born 24th day 9th month.
 Deliverance of John & Alice Crabtree died in 4th month.¹
 Joseph son of Richard & Alice Croychley born 3rd day 3d month.¹
 Elizabeth of Nathaniel & Elizabeth Eaton born 13 day 8 month.
 Mary of Daniel & Elizabeth Fairefield born 7th day 5 months.¹
 Lidia daugtr of Richard & Lidia Floud.
 Margaret of Thomas & Margaret Fowle born 13th day 2d month.
 Elizabeth daughter of Strong & Ellenor Furnell, born 7th day 3d month.
 John of Robt. & Mary Garret born 2d day of 4th month.
 Mehetabel of George & Elizabeth Halsall died in October.
 Hope daughter of Thomas & Hannah Hawkins born 2d day 2nd month.
 Elizabeth of Valentine & Francis Hill died. 9th day 2nd month.
 Elizabeth Haugh vx: Atherton Haugh died 14th day 8th month.
 Jeremy of Jeremy & Esther Houtchin born 20th day 2nd month & died soon after.
 Mary of Francis & Mary Hudson born 18th day 6th month.
 Lidia of James & Anne Hudson born 27th day 2d month.
 Hannah of William & Anne Hudson born 12th day 1st month.
 Joseph of William & Patience Wilson born 10th — 9th month.
 Hannah of Richard & Mary Woodhouse born 15th — 1st month.
 Hannah of William & Anne Beamsley born 10th month.
 John of Garret & Mary Bourne born 30th — 5th month & died 30th — 6th month.
 Peter of William & Mary Bridg born 11th mo.
 John of Richard & Joan Hogg born 4th — 1st month.
 Anne of Edward & Katherine Hutchinson born 18th — 9th month.
 Joel of Job & Sarah Judkins born 30th — 7th month.
 Samuel of Richard & Dinah Knight buried 25th — 7th month.
 John of John & Abigail Manning born 25th — 3rd month.
 John of Abel & Anne Porter born 27th — 9th month.
 Onesimus son of John & Sarah Stevenson born 26th — 10th month.
 Susannah of Edmund & Susan Jacklin born 27th day 2d month and died 10th day 8th month.
 John of John & Abigail Jackson born 26th day 4th month.
 Samuel of Edmund & Martha Jackson born 27th day 4th month.
 Thomas of Matthias & Anne Ijons born 18th day 4th month.
 Margaret wife of James Johnson died 28th day 1st month.
 Hannah of John Leverit born 16th day 2nd month.
 Thomas of Christopher & Elizabeth Lawson born 4th day 3rd month.
 Sarah of Henry Messenger born 12th day 1st month.
 Mary of Benjamin & Elizabeth Negoos. born 7th day 8th month.
 Joseph of Nicholas & Anne Parker born 26th day 1st month.
 John of John & Elizabeth Pierce born 16th — 4th month.
 Elizabeth of John & Elizabeth Pierce born 16th — 4th month.
 John of Abel & Anne Porter born 27th — 9th month.
 Henry Poole died 14th — 7th month.
 Hannah of Thomas & Faith Savage born 28th — 4th month.
 Joshua of Joshua & Lydia Scotto born 12th — 6th month.
 John of David & Susanna Sellick born 21st — 2nd month.
 Jonathan of Sampson & Abigail Shoreborne born 12th — 4th month.
 John of Walter & Mary Sinet born 10th — 5th month.
 Mr. Symons buried 14th — 7th month.
 Sarah of Robert & ——— Walker buried 19th — 10 month.
 Rebecca of Thomas & Rebecca Wheeler born 17th — 4th month.
 Phebe of Richard Williams born 6th mo.
 Sarah of Thomas & Sarah Webber born ———
 Benjamin of William & Joanna Francklin born 12th — 8th month.
 Sarah of Bezaleel & Mary Paiton born 9th — 6th month.
 Samuel of Thomas & Elizabeth Werdall born 16th — 3rd month.
 Adam of Henry & Mary Walton born 8th — 3rd month.

¹ Only found in second MS., the bottom of leaf of oldest MS. being worn away. — W. S. A

FIRST CHURCH.

Mary of Robert Scott, aged about 6 days	5 day	1 mo.
John of Jane & George Harwood, aged about 3 yrs. 8 mos	5 day	1 mo.
Johanna of Jane & George Harwood. aged about 14 wks	5 day	1 mo.
Sarah of Sarah & Henry Messenger aged about 6 days	12 day	1 mo.
Jeremiah of Jeremiah Howchen member of Ch. of Dorchester	12 day	1 mo.
Thomas of Joan & Thomas Jay. aged about 10 days	12 day	1 mo.
Samuel of Zachariah Bosworth, aged about 6 days	12 day	1 mo.
Nathaniel of Simon Rogers, member of Ch. of Concord aged about 20 days	12 day	1 mo.
Hannah of William Hudson the younger. aged about 8 days	19 day	1 mo.
Hannah of Alice & Peter Place, aged about 8 wks	19 day	1 mo.
Joseph of Francis Lysle, aged about 4 days	26 day	1 mo.
Joseph of Susan & Sylvester Evylith. aged about 1 yr & 9 mos	26 day	1 mo.
Tremble son of Richard Gridley. aged about 7 days	2 day	2 mo.
Hope of Hannah & Thomas Hawkins, aged about 8 days	9 day	2 mo.
Marie of Thomas Fowle. aged about 4 days	16 day	2 mo.
John of John Sinderland, aged about 2 yrs. 6 mos	16 day	2 mo.
Marie of John Sinderland, aged about 1 yrs. 6 wks	16 day	2 mo.
John of Susan & David Sellick. aged about 3 days	23 day	2 mo.
Hannah of John Leveritt. aged about 8 days	23 day	2 mo.
Lydia of Anne & James Hudson. aged about 6 days	23 day	2 me.
Lydia of Roger & Sarah Hannadowne member of Ch. of Waymouth. aged about 6 days	23 day	2 mo.
Joseph of George Burden, aged about 8 days	30 day	2 mo.
John of Anthony Harker, aged about 10 days	30 day	2 mo.
Susannah of Edmund Jacklyn, aged about 5 days	30 day	2 mo.
Hannah of Anne (now Porter) & William Simmons. aged about 2 yrs. 8 mos.	30 day	2 mo.
Joseph of Richard Critchley aged about 4 days	7 day	3 mo.
Joseph of Nicholas Parker aged about 6 weeks	14 day	3 mo.
Elizabeth of Strong Furnell aged about 6 days	14 day	3 mo.
Mary of Mary & Richard Woodhouse, aged about 4 yrs 4 mos	14 day	3 mo.
John of Mary & Richard Woodhouse, aged about 2 yrs. 5 wks	14 day	3 mo.
Elizabeth of Benja. Negoose aged about 3 yr. 2 mos	11 day	4 mo.
Benjamin of Benjamin Negoose aged about 1 yr. 7 mos	11 day	4 mo.
Jonathan of Samson Shore aged about 7 days	18 day	4 mo.
Deborah of Mary & Francis Hudson	18 day	4 mo.
Elizabeth of Mary & William Burnell	18 day	4 mo.
John of Alice & Henry Stevens, aged about 5 yrs. 9 mos	18 day	4 mo.
James of Alice & Henry Stevens, aged about 3 yrs 10 weeks	18 day	4 mo.
Joseph of Alice & Henry Stevens, aged about 9 mos. 3 weeks	18 day	4 mo.
Samuel of Henry Shrimpton, aged about 26 days	25 day	4 mo.
Rebecca of Thomas Wheeler, aged about 9 days	25 day	4 mo.
Samuel of Edmund Jackson, aged about 6 days	2 day	5 mo.
John of Abigail & John Jackson, aged about 6 days	2 day	5 mo.
Hannah of Thomas Savage, aged about 5 days	2 day	5 mo.
Jarratt of Jarratt Burne, aged about 26 days	6 day	6 mo.
Wentworth of Wentworth Day, aged about 6 days	13 day	6 mo.
Sarah of Bezaliel & Mary Payton, she sometime called Mary Grenow from the Ch. of Sandwich	13 day	6 mo.
Joshua of Joshua Scottoe, aged about, 7 days	20 day	6 mo.
Mary of Mary & Francis Hudson, aged about 5 days	20 day	6 mo.
Phoebe of Robert Williams, aged about 8 days	3 day	7 mo.
Joel of Sarah & Job Judkyn, aged about 9 days	17 day	7 mo.
More Mercy of Edward Bendall. aged about 2 days	24 day	7 mo.
Solomon of Anthony Stoddard aged about 4 days	1 day	8 mo.
Elizabeth of Nathaniel Heaton, aged about 3 days	8 day	8 mo.
Mary of Benjamin Negoose aged about 8 days	8 day	8 mo.
Hannah of Susan & Sylvester Evylith	8 day	8 mo.
Hannah of John Audlyn, aged about 8 days	29 day	8 mo.
Nathaniel of Richard Wayte. aged about 11 days	5 day	9 mo.

Anne of Edward Hutchinson, the younger. aged about 2 days	19 day 9 mo.
John of Abel Porter, aged about 7 days	19 day 9 mo.
Ruth of William Copp. aged about 2 days	26 day 9 mo.
Hannah of William Beamesly aged about 4 days	17 day 10 mo.
Rowland of John Cotton, Teacher. aged about 6 days	24 day 10 mo.
Sarah of Peter Oliver, aged about 6 days	7 day 11 mo.
Thomas of Thomas Marshall. aged about 5 days	7 day 11 mo.
Elijah of John Kenricke, aged about 6 days	21 day 11 mo.
Deborah of Gamaliel Wayte, aged about 4 days	21 day 11 mo.
Jonathan of Samuel Sherman, aged about 3 days	11 day 12 mo.
John of Robert Turner born 28 day last 2 nd . mo 1643	18 day 12 mo.

1644.

TOWN.

Hannah of Capt. Thomas Hawkins born 8th month.
 Hannah wife of Thomas Hawkins baker died 27th — 3rd month.
 Joseph & Benjamin sons of Valentine & Frances Hill born 29th — 4th month
 & died 6th month.
 Zebulun son of Nicholas Huët born 11th mo.
 Mehetabel of Jeremy & Ester Houtchin born 4th month.
 Deborah of James Hudson born 3rd — 8th month.
 Mary of Francis & Mary Hudson born 22nd — 6th month.
 Joseph of John & Mary Hurd born 10th — 7th month.
 Timothy of George & Anne Hyde born 6th month.
 Susan of Edmund & Susan Jacklin buried 1st — 8th month.
 Rebecca of Matthew & Anne Jons born 26th — 12th month.
 Joseph of James & Abigail Johnson born & buried 27th — 7th month.
 Jone daughter of Thomas & Anne Dutchfield born & buried 5th month.
 Isaac of Isaac & Anne Addington born 22nd — 11th month.
 James Alexander servant to Theodore Atkinson died 19th — 6th month.
 Theodore of Theodore & Abigail Atkinson born 10th — 2nd month.
 Hopestill daughter of Thomas & Anne Bel born the 2nd — 6th month.
 Mary wife of Edward Bendall buried 3rd month.
 Benjamin of Nathaniel & Alice Bishop born 31st — 3rd month.
 John of William Bornell born 8th mo.
 Mary wife of Garret Bourne 30th — 3rd mo.
 Peniel son of Griffith & Margaret Bowen born 10th — 3rd month.
 Moses of Robert & Martha Bradford born 2nd — 1st month.
 Hannah of Alexander & Elizabeth Baker born 29th — 7th month.
 Stephen of Stephen & Judith Winthrop born 7th — 9th month.
 John of Robert and Rebecca Winsworth born 10th — 12th month.
 John of Nathaniel & Mary Williams born 6th month.
 Samuel of Edward & Elizabeth Weeden born 6th month.
 William Webb buried 10th month.
 Elizabeth of Robert & Joan Wing born 5th mo.
 Smith of Robert & Rachel Woodward born 6th mo.
 Elizabeth of David & Ursula Yale born 3rd month & died 30th — 6th
 month.
 Hannah of Thomas & Milcah Snow born 2nd month.
 Hannah of George & Susan Allen born 10th — 1st month.
 Elizabeth of Lancelot & Judith Baker born 13th — 10th month.
 Ebenezer of William & Phebe Francklin died 24th — 8th month.
 Hannah Lathrop servant to Richard Waite died 30th — 9th month.
 John of Richard & Abigail Lippincot born 6th — 9th month.
 Abigail wife of John Manning buried 25th — 3rd month.
 Mary of John & Abigail Manning born 3rd — 4th month.
 Jacob of Ralph & Anne Mason born 12th — 2nd month.
 James of Robert & Elizabeth Mers born 9th — 1st
 Samuel of John Milom born 6th month.
 Sarah of Joseph Phippeni born 11th mo.

John of William & Anne Pollard born 4th — 4th month.
 Elizabeth of Peter & Alice Plaise born 29th — 7th month.
 Sarah of Arthur & Elizabeth Perry born 30th — 9th month.
 David of Edward & Elizabeth Rainsford born 7th month.
 Deliverance of Henry & Sibla Sands born 6th month.
 John of Thomas & Joan Scotto born 2nd — 3rd month.
 Mary of John & Mary Severne born 15th — 7th month.
 Jonathan of Sampson & Abigail Shore born 16 — 3rd month and buried
 3rd mo.
 John of Francis & Elizabeth Smith born 30th — 6th month.
 Hannah of John Synderland born 8th mo.
 Mary of Thomas & Alice Spaule born 7th month.
 John of Benjamin and Deborah Thwing born 21st — 9th month.
 John of Robert & Elizabeth Turner buried 19th — 3rd month.
 Joseph of Robert & Penelope Turner born 7th — 7th month.
 Hannah of Thomas & Alice Venner born 11th month.
 Jacob of Robert Walker born 21st — 1st mo.
 Isaac of Isaac Walker born 7th month.
 Mary of William Werdall born 2nd month.
 Deborah of Cotton & Jane Fflack born 5th — 8th month
 Hannah of John Gallop Junior born 14th — 6 month.
 Thomas of Arthur Gill born 8th month.
 Joseph of Benjamin & Ann Gillam born 7th month.
 Susan of Edmund & Katherine Grosse born 6th month.
 John of Thomas & Anne Grubb born ——— & died 6th month.
 Elizabeth of Thomas & Anne Grubb born 5th month & died 8th month.
 Joseph of George & Elizabeth Halsall born 3rd — 10th month.
 Experience daughter of William & Joan Harvie born 4th — 1st month.
 Mary of William & Mary Chadbourne born 10th month.
 Benjamin of Richard & Elizabeth Cooke born 6th month.
 John of Lawrence & Martha Douce born 8th month.
 Mary of William & Mary Davies born 3rd — 8th month.
 Martha of Edmund & Sarah Dennis born 1st — 3rd month.
 Martha wife of Lawrence Douce buried 8th month.
 John of William & Martha Dinsdale born 3rd month.
 Elizabeth of Frances & Mary East born 1st — 9th month.
 Marie of Madit & Joane Engles born 9th mo.
 Robert of Robert & Deborah Ffen born 4th mo.
 Abel of Gabriel & Elizabeth Ffish born 15th — 10th month.
 Mary Ffitch servant to Richard Waite died 24th — 8th month.
 Mary of William & Hester Hilyard born 7th — 4th month.
 John of John & Elizabeth Oliver born 15th — 2nd month.
 Mary of Thomas & Luce Saxton born 2nd — 11th month.
 Elizabeth of Jacob & Margaret Sheafe born 1st — 8th month.
 Seth of Robert & Margaret Woodmansey born 26th 1st month.
 Thomas of Angell & Catherine Hollard born 8th — 8th month.

FIRST CHURCH.

Hannah of Mary & Richard Woodhouse, aged about 5 days	3 day	1 mo.
Moses of Robert Bradford, aged about 10 days	10 day	1 mo.
John of Richard Hogge, aged about 7 days	10 day	1 mo.
Experience of Joan & William Harvy, aged about 7 days	10 day	1 mo.
Sarah of Arthur Clarke, aged about 7 days	17 day	1 mo.
Onesimus of John Stevenson, aged about 13 wks	24 day	1 mo.
Jacob of Robert Walker, aged about 4 days	24 day	1 mo.
James of Elizabeth & Robert Meares, aged about 4 days	31 day	1 mo.
Marie of William Wardall, aged about 9 days	14 day	2 mo.
John of John Oliver. aged about 7 days	21 day	2 mo.
Elisha of Nathaniel Woodward, aged about 6 days	21 day	2 mo.
Rich-Grace Simons of Henry Simons from the Ch. of South Hampton. aged about 3 days	21 day	2 mo.
Hannah of Thomas Snow. aged about 5 days	21 day	2 mo.

Mary of Francis Dowse aged about 6 days	21 day	2 mo.
Theodore of Theodore Atkinson, aged about 9 days	28 day	2 mo.
John of Thomas Scottoe, aged about 4 days	5 day	3 mo.
Martha of Edward Dennys aged about 6 days	5 day	3 mo.
John of Robert Feilde aged about 4 days	26 day	3 mo.
Benjamin of Nathaniel Bushopp. aged about 3 days	2 day	4 mo.
John of John Vyoll, aged about 5 days	2 day	4 mo.
Deborah of William Pell aged about 6 days	2 day	4 mo.
Deborah of Thomas Clarke. aged about 6 days	9 day	4 mo.
Robert of Robert & Deborah Fenne, from the Ch. of Salem aged about 3 days	16 day	4 mo.
Joseph & Benjamin } of Valentine Hill aged about 4 days	23 day	4 mo.
Mehetabel of Jeremiah Howchin aged about 7 days	30 day	4 mo.
Elizabeth of Thomas Grubb. aged about 6 days	30 day	4 mo.
Hopestill daut ^r of Anne & Thomas Bell, aged about 3 days	21 day	5 mo.
John of Jane & John Lugg. aged about 2 days	4 day	6 mo.
Benjamin of Richard Cooke aged about 5 days	4 day	6 mo.
Smyth son of Rachel & Robert Woodward, aged about 5 days	4 day	6 mo.
Elizabeth of Robert Winge aged about 8 days	4 day	6 mo.
Elizabeth of Mary & John Seborne	11 day	6 mo.
Samuel of John Mylam, aged about 3 days	18 day	6 mo.
John of Nathaniel Willyams aged about 3 days	18 day	6 mo.
David of Edward Ransford aged about 3 days	1 day	7 mo.
Mary of Nicholas Baxter	1 day	7 mo.
Mary of John Winthrop jun aged about, 9 days	15 day	7 mo.
John of Robert Turnor. Shoemaker aged about 7 days	15 day	7 mo.
Joseph of Robert Turnor, Inholder. aged about 8 days	15 day	7 mo.
Joseph of John Hurde, aged about 7 days	15 day	7 mo.
Mary of Mary & John Seborne. aged about 7 days	22 day	7 mo.
Joseph of James Johnson, aged about 3 days	29 day	7 mo.
Hannah of John Sinderland	29 day	7 mo.
Elizabeth of Alice & Peter Place. aged about 7 days	6 day	8 mo.
Joseph of Benjamin Gillam. aged about 9 days	13 day	8 mo.
Deborah of Cotton Flacke aged about 8 days	13 day	8 mo.
Thomas of Arthur Gill. aged about 8 days	20 day	8 mo.
Deborah of Anna & James Hudson, aged about 8 days	20 day	8 mo.
Stephen of Stephen Winthrop, aged about 3 days	10 day	9 mo.
Hannah of Thomas Hawkins. aged about 1 day	10 day	9 mo.
Elizabeth of Francis East. aged about 4 day	10 day	9 mo.
John of Richard Lippincott. member of Ch. of Dorchester aged about 4 days	10 day	9 mo.
Thomas of Angell Hollard. member of Ch. of Waymouth aged about. 5 wks	10 day	9 mo.
Mary of Maudit Inglys aged about 4 days	17 day	9 mo.
Joseph of Thomas Bumstead. member of Ch. of Rocksbury aged about. 7 days	24 day	9 mo.
Mary of William Townsend. aged about 7 days	24 day	9 mo.
John of Benjamin Thwing aged about 7 days	1 day	10 mo.
James of Thomas Fowle aged about 5 days	8 day	10 mo.
Joseph of George Halsall	8 day	10 mo.
Sarah of Thomas Webber aged about 3 days	8 day	10 mo.
Sarah of Arthur Pury aged about 7 days	15 day	10 mo.
Abel of Gabriel Fish member of Ch. of Exeter. aged about 8 days	23 day	10 mo.
Joseph of Richard Webb. aged about 4 years	12 day	11 mo.
Nehemiah of Richard Webb aged about 3 years	12 day	11 mo.
Isaac of Isaac Addington. aged about 5 days	26 day	11 mo.
Samson of Samson Shore aged about 14 days	26 day	11 mo.
Anna of ——— Venner member of Ch. of Salem aged about 18 days	2 day	12 mo.
John of Mary & William Burnell	2 day	12 mo.
Sarah of Joseph Phippeny member of Ch. of Hingham. aged about 5 days	9 day	12 mo.
John of Rebecca & Robert Windsore. aged about 7 days	16 day	12 mo.

1645.

TOWN.

Rebecca of Henry & Sarah Linne born 15th — 12th month.
 John of John & Sarah Marshall born 10th — 10th month.
 Thomas of John & Elizabeth Oliver born 10th — 12th month.
 Abraham of Abraham & Mary Page born 7th — 1st month.
 Susan wife of Henry Pease buried 25th — 10th month.
 Samuel of William & Anne Pollard born 24th — 11th month.
 Isaac of Isaac & Susanna Walker died 30th — 8th month.
 William of Henry & Mary Walton born 29th — 7th month.
 Elizabeth of George & Mary Michell born 26th Aug.
 Mary of Henry & Ellinor Shrimpton born 6th month.
 Deborah of Henry & Alice Stevens born 25th — 2nd month.
 John of John & Sarah Stevenson born 7th m.
 John of Thomas Stanberry born 15th — 7th m.
 Temperance wife of John Sweete died 11th mo.
 Joseph of Richard & Alice Tapping born 30th — 7th month & died 14th — 8th mo.
 Grace of William & Grace Toy born 23rd — 6th month.
 Deliverance of Edward & Mary Tyng born 6th — 6th month.
 John of Hezekiah & Frances Usher buried 10th month.
 Elizabeth of Hezekiah & Frances Usher born 1st — 12th month.
 Benjamin of Richard Williams born 6th mo.
 Newgrace son of William Wilson buried 6th month.
 John of Robert & Mary Wright buried 1st mo.
 David of David & Ursula Yale born 18th — 7th month.
 Posthumus son of Thos: & Anne Dutchfield born 6 month.
 Thomas Dutchfield buried 24th day 2 month.
 Elizabeth of Nicholas & Catherine Charlet born 15th — 5th month & buried 7th month.
 Thomas of John & Susan Collens born 15th — 8th month.
 Benjamin of Richard & Elizabeth Cooke buried 3rd month.
 Joseph of Richard & Alice Critchley buried 6th month.
 Alice the wife of Richard Critchley buried.
 John of Lawrence & Martha Douce buried 6th month.
 Thomas of William & Mary Davies born 3rd — 7th month.
 John of George Dell born 8th month.
 Ebenezer of Robert & Dorothy Moone born 7th — 8th month.
 Faith of Thomas & Faith Munt born 24th — 2nd month.
 Samuel of Benjamin & Elizabeth Negoos born 17th — 10th month.
 Leonard Pitts servant of John Burrell died 13 Feb.
 Ruth of William & Ruth Parson born 3rd — 8th month.
 Timothy of Timothy Prout born 10th — 1st month.
 Elisha of William Rex born 6th mo.
 Ephraim of Thomas & Faith Savadge born 2nd — 5th month.
 John of Robert Scott born & buried 6th mo.
 Lydia of Joshua & Lydia Scotto born 5th month.
 Nathaniel of David & Susan Selleck born 5th month.
 Deborah of John & Mary Severne born 26th — 12th month & died 6th — 1st mo.
 Hannah of Edmund & Susan Jacklin born 12th — 9th month.
 Hannah of John Jackson born 2nd — 5th mo.
 Jeremie of Edmund & Martha Jackson born 5th month.
 Abigail of James & Abigail Johnson born 25th — 9th month.
 Joseph of Thomas & Joan Joy born 1st — 2nd mo.
 Sarah of Job & Sarah Judkin born 7th — 10th month.
 Caleb of John & Mary Lake born 27th — 3rd mo.
 Mary of Christopher & Elizabeth Lawson born 27th — 8th month.
 Ester of William Ludkin buried 8th mo.
 Joseph of Richard & Dinah Knight born 15th — 3rd month.
 Simeon of Henry & Sarah Messenger born 1st month.
 Elizabeth of George & Mary Michel born 20th — 6th month.

Amander of James & Mary Minort born 7th month.
 Mary of Alexander & Mary Adams born 19th — 11th month.
 Nathaniel of Theodore & Abigail Atkinson born 28th — 9th month.
 Samuel of Godfrey & Sarah Armitage 7th — 8th month.
 John of John & Mary Barrel born 6th month.
 Hannah of John & Hannah Bateman born 10th — 1st month.
 Manasseh of Alexander & Elizabeth Beck born 8th — 8th month.
 Mary of William & Phebe Blantaine born 5th month.
 John of John & Sarah Bodman born 6th month.
 Sarah of Zaccheus & Anne Bosworth died 5th month.
 James of James & Grace Browne born 7th month.
 Martha of Robert & Martha Bradford born 9th — 9th month.
 Benjamin of Nicholas & Anne Shapley born 7th month.
 Abigail of William & Martha Beamsley born 8th — 12th month.
 Mary wife of Wm. Burnell died 16th — 9th month.
 John of John & Mary Barrell born 6th — 6th month.
 John of Henry & Elizabeth Bridgham born 7th month.
 Thomas of Thomas & Anne Bayes born 1st month.
 Mary of William & Phebe Blantaine born 4th — 6th month.
 John of Jonathan & Mary Baulston born 8 month.
 Alice wife of Richard Critchley died 26th — 1st month.
 Thomas Cook mariner died 12th month.
 Hannah of Francis & Catherine Douce born 7th — 11th month.
 Deborah of Robert & Deborah Fen born 15th — 11th month.
 Caleb of Thomas & Hannah Rawlins born 8th — 1st month.
 Lydia of Simon & Susan Rogers born 1st — 10th month.
 Lydia of Joshua & Lydia Scotto born 30th — 4th month.
 Sampson of Anthony Stoddard born 3rd — 10th month.
 Stephen of Walter & Mary Sinet born 12th — 9th month.
 Hopestill of Edward & Sarah Wells born 13th — 8th month.
 Mary of Richard & Elizabeth Waite born 15th — 12th month.
 Heman son of Thomas & Anne Grub born 21st — 12th month.
 Mary of Mark & Avery Hannds born 15th — 12th month.
 George Hide mariner died.
 Susan of Francis & Mary Hudson born 15th — 10th month.
 Samuel of John & Hannah Hanniford born 1st — 3rd month.
 Joseph of William & Joan Harvie born 8th — 10th month.
 James of Samuel & Isabel Hayward born 16th — 10th month.
 Susan of James & Mary Hawkins born 13th — 12th month.
 Sarah of Job Judkin born 3rd — 10th month.
 Elisha of John & Anne Kenrick born 18th — 8th month.
 Timothy son of Thomas & Mary Keisar born 15th — 12th month.
 Susanna of Henry & Anna Largin born 16th — 11th month.
 John of Edmund & Sarah Dennis born 18th — 12th month.
 Posthumus son of Thomas and Anne Ditchfield born 6th month.
 William of William Douglas born 1st — 2nd month.
 Mehetabel of Jacob & Margerie Eliot born 2nd month.
 Eliezer of William & Phebe Ffrancklin born 4th — 8th month & buried.
 Marie of Strong & Elliner Ffurnell born 5th month.
 Elizabeth wife of Hugh Gunnison died 25th — 11th month.
 Mary Hammon servant to Mr. Cotton died 7th month.
 Mary of Mark & Avery Hands born 15th — 12 month.
 Rebecca of Thomas Hawkins baker born 28th — 5 month.
 Frances wife of Valentine Hill died 17th — 12th month.
 Jabesh son of William & Mary Salter born 6th month.

FIRST CHURCH.

Rebecca of Matthew Ines aged about 4 days	2 day	1 mo.
Newgrace of William Wilson aged about 4 days	23 day	1 mo.
Timothy of Timothy Prout aged about 10 days	23 day	1 mo.
Simeon of Sarah & Henry Messenger aged about 4 days	23 day	1 mo.
Isaac of Edmund Grosse aged about 2 yrs 6 mos	23 day	1 mo.
Susannah of Edmund Grosse aged about 6 mos.	23 day	1 mo.

Samuel of Lawrence Dowse aged about 2 yrs 14 wks	23 day	1 mo.
John of Lawrence Dowse aged about 22 wks	23 day	1 mo.
Mary of Elizabeth & George Orrys aged about 1 yr. 7 mos	23 day	1 mo.
Elizabeth of John Spoure aged about 6 days	30 day	1 mo.
Joseph of Joan & Thomas Jay aged about 13 days	13 day	2 mo.
Deborah of Alice & Henry Stevens aged about 3 days	27 day	2 mo.
Mehetabell of Jacob Elyott deacon aged about 9 days	4 day	3 mo.
Hannah of George Burden aged about 20 days	4 day	3 mo.
John of Thomas Rashley aged about 6 weeks	18 day	3 mo.
Joseph of Richard Knight aged about 4 days	18 day	3 mo.
Caleb of John Lake aged about 5 days	1 day	4 mo.
Rebecca, of Mary & Thomas Keysar aged about 4 yr. 7 mo	15 day	4 mo.
Thomas of Mary & Thomas Keysar aged about 2 yr. 5 wks	15 day	4 mo.
Mary of Anne & George Hyde aged about 2 yr. 10 mo.	15 day	4 mo.
Timothy of Anne & George Hyde aged about, 10 mo 2 wks	15 day	4 mo.
Lydia of Joshua Scottoe aged about 6 days.	29 day	4 mo.
Deliverance, of Edward Ting aged about 8 days	13 day	5 mo.
Jeremiah of Edmund Jackson aged about 6 days	20 day	5 mo.
Elizabeth of Nicholas Charlett aged about 5 days	20 day	5 mo.
Ephraim of Thomas Savidge aged about 6 days	27 day	5 mo.
Nathaniel of David Sellick aged about 9 days	27 day	5 mo.
Sarah of Zacharias Bosworth aged about 3 days	27 day	5 mo.
Hannah of Abigail & John Jackson aged about 4 days	27 day	5 mo.
John of John Barrell aged about 3 days	3 day	6 mo.
Mary of William Blanton aged about 8 days	3 day	6 mo.
Mary of Henry Shrimpton aged about 13 days	10 day	6 mo.
Mary of Strong Furnell aged about 8 days	10 day	6 mo.
Jabez of William Salter aged about 8 days	17 day	6 mo.
John of Robert Scott aged about 4 days	24 day	6 mo.
Grace of William Toy aged about 3 days	24 day	6 mo.
Thomas of William Davisse aged about 5 days	7 day	7 mo.
James of James Browne aged about 8 days	7 day	7 mo.
John of Robert Willyams	7 day	7 mo.
Benjamin of Sarah & John Bodman	7 day	7 mo.
Joseph of Richard Topping aged about 4 days	28 day	7 mo.
John, of John Stevenson aged about 5 days	28 day	7 mo.
Eleazer of William Francklyn aged about 1 day	5 day	8 mo.
Sarah of Jane Stertt widow of William aged about 1 yr. 46 wks	5 day	8 mo.
Alexander of Alexander Baker aged about 9 yrs 9 mo ^s	5 day	8 mo.
Samuel of Alexander Baker aged about 7 yr. 9 mo ^s	5 day	8 mo.
John of Alexander Baker aged about 5 yr. 15 wk	5 day	8 mo.
Joshua, of Alexander Baker aged about 3 yr. 5 mo	5 day	8 mo.
Hannah, of Alexander Baker aged about 1 yr 6 days	5 day	8 mo.
Manasseh son of Alexander Beck aged about 5 days	12 day	8 mo.
Isaac of Isaac & Susanna Waker from the Ch. of Salem aged about 15 days	12 day	8 mo.
Ruth of William Parsons aged about 7 day	12 day	8 mo.
Samuel of Godfrey Armitage from the Ch. of Lynne aged about 6 day	12 day	8 mo.
Elisha of John Kenricke aged about 2 day	19 day	8 mo.
Martha of Robert Bradford aged about 8 days	16 day	9 mo.
John of Gamaliel Wayte aged about 3 days	16 day	9 mo.
Hannah of Edmund Jacklyn aged about 7 days	16 day	9 mo.
Abigail of James Johnson aged about 4 days	30 day	9 mo.
Nathaniel of Theodore Atkinson aged about 4 days	30 day	9 mo.
Mary of Mary & Edward Kibby aged about 5 yr. 7 mo 2 wks	30 day	9 mo.
James of Mary & Edward Kibby aged about 3 yr 6 mo.	30 day	9 mo.
Elisha of Mary & Edward Kibby aged about 10 mo. 10 d.	30 day	9 mo.
Thomas of Martha & Thomas Stanbury aged about 3 yrs. 7 wks	30 day	9 mo.
John of Martha & Thomas Stanbury aged about 1 yr. 11 wks	30 day	9 mo.
Samson of Anthony Stoddar aged about 5 day	7 day	10 mo.
Lydia of Simon Rogers aged about 4 day	7 day	10 mo.
John of Elizabeth formerly Lothrop now wife of John Skuddar	7 day	10 mo.
Sarah of Sarah & Job Judkyn aged about 8 days	14 day	10 mo.

Joseph of Joan & William Harvy aged about 5 day	14 day 10 mo.
Joseph of Henry Bridgham aged about 8 days	14 day 10 mo.
Hannah of Mary & Francis Hudson aged about 7 days	21 day 10 mo.
Hannah of Robert Button from the Ch. of Salem aged about 5 days	21 day 10 mo.
Samuel of Benjamin Negoose aged about 16 day	4 day 11 mo.
Hannah of Francis Dowse aged about 5 day	11 day 11 mo.
William of Edward Hutchinson jun aged about 1 day	18 day 11 mo.
Mary of Mary & Alexander Adams aged about 6 days	25 day 11 mo.
Deborah of Robert and Deborah Fenne from the Ch. of Salem aged about $\frac{1}{2}$ day	8 day 12 mo.
Elizabeth of Hezekiah Usher from the Ch. of Cambridge aged about 7 day	8 day 12 mo.
Abigail of William Beamesley aged about 2 day	8 day 12 mo.
Timothy of Mary & Thomas Keysar aged about 5 day	15 day 12 mo.
Heman of Thomas Grubbe aged about 2 day	22 day 12 mo.
John of Edward Dennys aged about 5 day	22 day 12 mo.
Mary of Richard Wayte aged about 6 day	22 day 12 mo.

1646.

TOWN.

Susanna of Samuel & Anna Davis born 4th May.
 Thomas Werdall died 10th December.
 Joseph of Robert & Sarah Walker born 5th month.
 Susanna wife of Isaac Walker died 30th — 7th month.
 John of Robert & Mary Wyar born 1st — 9th month.
 Mary of Nathaniel & Mary Williams born 30 — 9th month.
 John of Mr. Stephen Winthrope born 24th — 3rd month.
 Joseph of Robert & Joanna Wing born 13th — 8th month.
 Robert of Robert & Rachel Woodward born 14th — 9th month.
 Cornelius of William & Elizabeth White born 7th — 11th month.
 Mercy of Thomas & Ann Bell born 14th Jan.
 John of Henry & Sibil Sandis born 28th — 6th month.
 Joseph of Francis & Elizabeth Smith born 24th — 6th month.
 Elizabeth of Thomas & Elizabeth Smith born 6th — 9th month.
 Elizabeth of Thomas & Mary Spaule born 29th — 7th month.
 John of John & Martha Shaw born 16th — 3rd month.
 Daniel of Daniel & Lydia Turell born 16th — 6th month.
 Benjamin of Robert & Penelope Turner born 6th — 1st month.
 Rebecca of Edward & Mary Tyng born 23rd — 1st month.
 James of William & Hannah Townsend born 15th — 11th month.
 John of Richard & Mary Tailor born 2nd — 12th month.
 Leah of William & Alice Werdall born 7th — 10th month.
 Abigail of James & Abigail Johnson born 12th — 12th month.
 Sarah of Arthur & Jane Kynde born 9th month.
 Deborah of George & Jane Kenrick born 16th — 6th month.
 Abigail of Richard & Abigail Lippincot born 17th — 11th month & died 9th — 1st month.
 Ebenezer of John & Christian Milom born 6th — 3rd month.
 Sarah of Richard & Abigail Montague born 15th — 4th month & died 19th — 4th month.
 Daniel of Dermin & Dinah Mahoonne born 4th — 10th month.
 John of John & Judith Marble born 10th — 9th month.
 John of George & Elizabeth Oris born 1st — 1st month.
 Peter of John & Margaret Odlin born 2nd — 6th month.
 Mary of Bezaleel & Mary Paiton born 7th — 3rd month.
 Anne of Isaac & Ann Addington born 10th — 1st month.
 Naomi daughter of George & Susan Allen born 26th — 10th month.
 Menaoh son of John & Sarah Bodman born 6th — 1st month.
 Mary of John & Mary Barrell born 16th — 1st month.
 James of Richard & Penelope Bellingham born 2nd — 3rd month.
 John of Nathaniel & Alice Bishop born 31st — 11th month.

Samuel of Nathaniel & Alice Bishop died 7th — 1st month.
 Lydia of William & Goodith Copp born 5th month.
 William of William & Anne Cotton born 31st — 3rd month.
 Rachel of Thomas & Elizabeth Clarke born 6th — 5th month.
 John of Hugh & Lydia Drury born 2nd — 3rd month.
 Joseph of Peter & Alice Plaise born 19th — 8th month.
 Elizabeth of Arthur & Elizabeth Perry born 28th — 11th month.
 Abraham of Abraham & Mary Page died 30th — 1st month.
 Jane of Thomas & Margaret Robinson born 16th — 7th month.
 Mary of William & Grace Rex born 4th — 1st month.
 Rebecca of Robert & Hannah Read born 29th — 7th month.
 John of William & Susan Reade born 25th — 7th month.
 Timothy of Robert & Eunice Roberts born 7th — 6th month.
 James of John & Dorothy Synderland born 18th — 1st month.
 Thomas of Thomas & Joan Scotto born 3rd — 1st month.
 Nathan of Thomas & Martha Stanberry born 25th — 10th month.
 David of Francis & Mary East born 26th — 11th month.
 Joanna of Strong & Eleanor Furnel born 26th — 12th month.
 Mary of John & Elizabeth Fernside born 8th — 7th month.
 Mary of Mark & Avery Hannds died 7th — 4th month.
 Hannah of George & Elizabeth Halsall born 11th month.
 Sarah of Angel & Catherine Hollard born 5th — 1st month.
 James of James & Anne Hudson born 25th — 6th month.
 Joseph of Edward & Eleanor Harrison born 20th — 3rd month.
 Martha of Job & Frances Hawkins born 26th — 1st month.
 Mary of Richard & Joan Hogg born 3rd — 11th month.
 Ephraim of Thomas & Joan Joy born 7th — 12th month.
 Sarah of Anthony & Mary Harker born 30th — 7th mo.

Herman Atwood & Ann Copp married 11th — 6th month.

John Tuttell was married to Mary Holyoacke dau. of Mr. Edward Hollyoacke of Lynne Feb. 10.

FIRST CHURCH.

Mary of Peter Oliver aged about 8 days	1 day	1 mo.
Deborah of Mary & John Sebborne aged about 4 days	1 day	1 mo.
Thomas of John Oliver aged about 26 day	8 day	1 mo.
Abraham of Abraham & Mary Page from the Ch. of Braintree aged about 1 day	8 day	1 mo.
Elizabeth of William Douglas born 26 ^d 6 mo. 1641	8 day	1 mo.
Sarah of William Douglas born 8 day 2 mo. 1643	8 day	1 mo.
William of William Douglas born 1 day 2 mo. 1645	8 day	1 mo.
Elisha of Grace & William Rickes	8 day	1 mo.
John of John Leveritt aged about 5 days	22 day	1 mo.
Susanna of John Collens aged about 3 yr. 12 day	5 day	2 mo.
Thomas of John Collens aged about 7 mo.	5 day	2 mo.
Nathaniel of Nathaniel Woodward aged about 7 day	12 day	2 mo.
James of Richard Bellingham aged about 7 day	10 day	3 mo.
Ebenezer of John Mylam aged about 4 day	10 day	3 mo.
John of George Clifford	10 day	3 mo.
Mary of Bezaleel Payton aged about 8 days	17 day	3 mo.
John of Stephen Winthropp aged about 8 days	31 day	3 mo.
Mary of Samuel Davis aged about 26 days	31 day	3 mo.
John of Elizabeth & Francis Smith aged about 1 yr $\frac{3}{4}$	31 day	3 mo.
Mary of Agnes & William Keayne aged about 7 yr & $\frac{1}{2}$	31 day	3 mo.
John of Agnes & William Keayne aged about 3 yr 10 mo.	31 day	3 mo.
Lucy of Abraham Hackborne aged about 4 days	14 day	4 mo.
Sarah of Abigail & Richard Mountague aged about 2 days	28 day	4 mo.
Samuel of Richard Davenport from the Ch. of Salem aged about 11 day	5 day	5 mo.
Peter of John Audley aged about 9 day	12 day	5 mo.
Rachel of Thomas Clarke aged about 6 day	12 day	5 mo.
Joseph of Robert Walker aged about 5 day	19 day	5 mo.
Samuel of Thomas Buttall aged about 3 day	19 day	5 mo.

Lydia of William Copp aged about 3 day	9 day 5 mo.
Joseph of Valentine Hill aged about 8 day	26 day 5 mo.
Nathaniel of John Vyoll aged about 3 day	26 day 5 mo.
Timothy of Thomas Robert member of Ch. of Rocksbury aged about 1 day	9 day 6 mo.
John of Robert Scott aged about 20 day	16 day 6 mo.
Joseph of Elizabeth & Francis Smith aged about 5 day	30 day 6 mo.
James of ——— wife of James Hudson aged about 6 day	30 day 6 mo.
John of Jarvis & Mary Gould member of Ch. of Hingham aged about 33 days	30 day 6 mo.
Deborah of George Kenricke member of Ch. of Situate aged about 6 wks	13 day 7 mo.
Submit daut of Thomas Clarke member of Ch. of Dorchester aged about 1 day	20 day 7 mo.
John of William Reade member of Ch. of Waymoth aged about 4 day	27 day 7 mo.
Elizabeth of Gabriel Fish member of Ch. of Exeter aged about 5 day	4 day 8 mo.
Susanna of Isaac Waker aged about 8 day	11 day 8 mo.
Sarah of Anthony Harker aged about 23 days	11 day 8 mo.
Solomon of John Blacklidge from the Ch. of Salem	18 day 8 mo.
Martha of Thomas Foule aged about 7 days	25 day 8 mo.
Solomon of Edward Ransford aged about 8 days	25 day 8 mo.
Joseph of Peter Place	25 day 8 mo.
Joseph of Robert Winge aged about 7 day	1 day 9 mo.
Samuel of Arthur Clarke aged about 4 day	1 day 9 mo.
Rebecca of Robert Reade member of Ch. of Exeter aged about 29 days	1 day 9 mo.
Mary of John Hurd aged about 7 days	8 day 9 mo.
Robert of Rachel & Robert Woodward aged about 2 days	8 day 9 mo.
Mary of Nathaniel Willyams aged about 1 day	6 day 10 mo.
Leah of ——— wife of William Wardall	6 day 10 mo.
Abigail of Abel Porter aged about 2 days	13 day 10 mo.
Hannah of George Halsall aged about 4 days	10 day 11 mo.
James of William Townsend aged about 2 days	17 day 11 mo.
More-Mercie of Anne & Thomas Bell aged about 3 days	17 day 11 mo.
Abigail of Richard Lippincott aged about 6 days	24 day 11 mo.
Elizabeth of Arthur Pury aged about 4 day	31 day 11 mo.
John of Nathaniel Bishopp aged about 2 day	31 day 11 mo.
Mary of Richard Hogg aged about 5 day	7 day 12 mo.
Abigail of James Johnson aged about 8 day	21 day 12 mo.
John of Elizabeth & George Orrys aged about 4 day	21 day 12 mo.
Benjamin of Robert Turnor late Inholder aged about 3 day	28 day 12 mo.
David of Francis East aged about 3 day	28 day 12 mo.
Joanna of Strong Furnell aged about 5 day	28 day 12 mo.
Ephraim of Joan & Thomas Jay aged about 22 day	28 day 12 mo.

1647.

TOWN.

Abigail of Theodore & Abigail Atkinson born 24th — 6th month.
 William son of Alexander & Elizabeth Baker born 15th — 3rd month.
 Robert of Robert & Francis Burnam born 25th — 7th month.
 Jane of Richard & Jane Critchley born.
 Samuel of George & Abigail Dell born 31st — 6th month.
 Robert of Robert & Mary Field born 30th — 9th month.
 Heman son of Thomas & Anne Grub died 29th — 7th month.
 Mary of Edmund & Martha Jackson born 17th — 2nd month.
 John of John & Martha Mellowes born 8th — 2nd month & died 19th — 2nd month.
 Hannah of Ralph & Anne Mason born 23rd — 10th month.
 Susanna of Timothy & Margaret Prout born 26th — 2nd month.
 Susanna of John & Susanna Sweete born 3rd — 2nd month.

Jabesh of William & Mary Salter born 7th month.
 Habbakuck son of Robert & Elizabeth Turner born 18th — 2nd month.
 Joseph of Peter & Mary Thornton born 5th — 2nd month.
 John of Christopher & Ann Holland born 1st Feb.
 Joseph of Joseph & Mary Bastarr born 29th Sept.
 John of Thomas & Luce Saxton born 29th June.
 David of David & Elizabeth Kelly born 18th Dec.

FIRST CHURCH.

Samuel of Mauditt Inglys aged about 9 days	7 day	1 mo.
Thomas of Thomas Scottoe aged about 5 days	7 day	1 mo.
Sarah of Angell Hollard member of Ch. of Waymonth aged about 4 days	7 day	1 mo.
Mary of Grace & William Rickes aged about 4 days	7 day	1 mo.
Manoah of Sarah & John Bodman aged about 3 days	7 day	1 mo.
Anne of Isaac Addington aged about 5 days	14 day	1 mo.
Abigail of Samson Shore aged about 7 days	14 day	1 mo.
Mathias of Mathias Ines aged about 6 day	14 day	1 mo.
Rebecca of Edward Ting aged about 6 day	21 day	1 mo.
Mary of John Barrell aged about 6 day	21 day	1 mo.
Jane of Richard Critchley aged about 6 day	21 day	1 mo.
James of John Sinderland aged about 4 day	21 day	1 mo.
David of Joseph Phippeny member of Ch. of Hingham aged about 7 wks.	4 day	2 mo.
Deriah of Griffin Bowen aged about 6 days	11 day	2 mo.
Nathaniel of John Gill	11 day	2 mo.
Susanna of John Sweete aged about 7 days	11 day	2 mo.
Habbakkuk son of Robert Turnor Shoemaker aged about 5 days	18 day	2 mo.
Samuel of Hannah & John Hannifall aged about 36 wks	18 day	2 mo.
William of Alexander Baker aged about 4 days	18 day	2 mo.
Mary of Edmund Jackson aged about 2 days	18 day	2 mo.
Jonathan of Mary & Richard Woodhouse aged about 9 day	25 day	2 mo.
Susanna of Timothy Prout aged about 7 day	2 day	3 mo.
Ebenezer of Anne & John Manning aged about 10 wks 3 days	16 day	3 mo.
Mary of William Cotton aged about 5 yr 5 mo.	16 day	3 mo.
John of William Cotton aged about 3 yr 5 mo	16 day	3 mo.
William of William Cotton aged about 11 mo. 16 d.	16 day	3 mo.
Patience of Mary & George Dodd aged about 1 yr. 35 d.	16 day	3 mo.
Sarah of Sarah Gunison late w. of Henry Lynne dec. aged about 10 yrs 6 mo.	23 day	3 mo.
Elizabeth of Sarah Gunison late w. of Henry Lynne dec. aged about 9 yr. 2 mo.	23 day	3 mo.
Ephraim of Sarah Gunison late w. of Henry Lynne dec. aged about 7 yr. 4 mo.	23 day	3 mo.
Rebecca of Sarah Gunison late w. of Henry Lynne dec. aged about 5 yr 3 mo.	23 day	3 mo.
Hannah of Joanna & Hugh Northend she form. Copp aged about 5 days	30 day	3 mo.
Mary of Mary & Waters Sennitt aged about 6 yr 6 mo 11 d	30 day	3 mo.
John of Mary & Waters Sennitt aged about 3 yr. 10 mo 18 days	30 day	3 mo.
Stephen of Mary & Waters Sennitt aged about 1 yr. 6 mo. 18 days	30 day	3 mo.
Mary of Thomas Savidge aged about 8 days	6 day	4 mo.
Joshua of Rebecca & Robert Windsore aged about 7 day.	13 day	4 mo.
Martha of Sarah & Richard Mountague aged about 4 day	20 day	4 mo.
Vigilant son of Samuel Oliver aged about 7 day	27 day	4 mo.
Borshua dau of Philemon Pormort member of Ch. of Exeter	4 day	5 mo.
Benjamin of Benjamin Thwing aged about 4 days	18 day	5 mo.
Samuel of Robert Scott aged about 4 days	1 day	6 mo.
Elizabeth of Joshua Scottoe aged about 2 day	1 day	6 mo.
Samuel of Thomas Buttall aged about 8 day	15 day	6 mo.
Hannah of Edmund Grosse aged about 8 day	15 day	6 mo.
Maryah of Sarah & Henry Messenger aged about 7 day	15 day	6 mo.
John of Valentine Hill Deacon aged about 3 day	22 day	6 mo.

Thomas of Thomas Clarke aged about 4 days	22 day 6 mo.
Mary of Marmaduke Mathews member of Ch. of Yarmouth aged about 11 mo.	29 day 6 mo.
Abigail of Theodore Atkinson aged about 7 days	29 day 6 mo.
Samuel of Jeremiah More	29 day 6 mo.
Anna of William DAVISSE aged about 8 days	5 day 7 mo.
Daniel of Lydia & Daniel Turell	5 day 7 mo.
Peter of Abigail & John Jackson aged about 6 days	12 day 7 mo.
Mary of Catharine & Nicholas Charlett aged about 5 days	3 day 8 mo.
John. of Hermon Atwood aged about 5 days	10 day 8 mo.
Elizabeth of Mary & Mark Haines aged about 5 days	10 day 8 mo.
Isaac of Isaac Waker aged about 6 days	17 day 8 mo.
Adam of Adam Winthrop aged about 16 days	31 day 8 mo.
Paul of John Stevenson aged about 3 days.	31 day 8 mo.
Persis dau of John Lake aged about 13 days	31 day 8 mo.
Sarah of Francis Dowse aged about 6 day	7 day 9 mo.
Deborah of Mary & Edward Kibby	7 day 9 mo.
John of William Toy aged about 5 day	21 day 9 mo.
Elizabeth of George Burden aged about 5 wks 4 days	28 day 9 mo.
Maria of Sarah & James Jempson	28 day 9 mo.
Sarah, of Jacob Elyott Deacon aged about 6 days	5 day 10 mo.
Robert of Robert Feild aged about 6 days	5 day 10 mo.
Jonathan of William & Mary Alford member of Ch. of Salem aged about 6 days	5 day 10 mo.
Elizabeth of Robert & Deborah Fenne from the Ch. of Salem aged about 4 days	26 day 10 mo.
John of James Pemerton	26 day 10 mo.
Mary of Mary & Amos Richardson	26 day 10 mo.
John of Mary & Amos Richardson aged about 29 days	26 day 10 mo.
John of George & Faith Bennett she formerly Newell aged about 4 days	2 day 11 mo.
Mary of John & Dorothy Downam member of Ch. of Braintree aged about 10 days	2 day 11 mo.
Hannah of Hannah & William Blanchard aged about 7 days	9 day 11 mo.
Elizabeth of Gamaliel Wayte aged about 5 days	16 day 11 mo.
Sarah of Robert Button from the Ch. of Salem aged about 6 days	16 day 11 mo.
Elizabeth of John Mylam aged about 9 days	30 day 11 mo.
Peter of Peter Place aged about 3 days	30 day 11 mo.
John of Richard Taylor aged about 4 days	6 day 12 mo.
Johanna of David Sellicke aged about 2 days	13 day 12 mo.
Hester of Hugh Gunison	20 day 12 mo.

1648.

TOWN.

Susan of Alexander & Mary Adams born 14th — 3rd month.
 Ruth of George & Susan Allen born 3rd — 8th month.
 Joseph of Edmund & Sarah Dennis born 13th — 4th month.
 Martha of William & Martha Dinsdale born 10th — 11th month.
 John of Abraham & Lydia Dible born 7th — 5th month.
 Lydia of James & Anne Hudson born 15th — 1st month.
 Peleg son of James & Mary Hawkins born 9th — 1st month.
 Susan of Edmund & Susan Jacklin born 16th — 11th month.
 Honour of Dermin & Deiner Mahoone born 29th — 8th month.
 Hannah of William & Anne Pollard born 10th — 11th month.
 Martha of John & Elizabeth Spoor born 26th — 1st month & died 19th — 7th month.
 John of Hezekiah & Frances Vsher born 17th — 2nd month.
 Peter of Richard & Sibil Bennet born 18th — 11th month.
 Mercy of George & Mary Michell born 25th Aug.
 Mary of Matthew & Tabitha Abda born 24th May.
 John of Thomas & Sarah Stevens born 15th May.

FIRST CHURCH.

Joseph of Mary & Waters Sennitt aged about 9 days	12 day	1 mo.
Sarah of William Cotton aged about 1 day	19 day	1 mo.
John of Lydia & Hugh Drewry aged about 1 yr $\frac{3}{4}$ & 7 wks	19 day	1 mo.
Martha of John Spoure aged about 3 days	26 day	1 mo.
Samuel of Margaret & Jacob Sheafe aged about 4 days	9 day	2 mo.
Jabez of Benjamine Negroose aged about 9 days	9 day	2 mo.
Temperance of Michael Wills member of Ch. of Dorchester	9 day	2 mo.
John of Hezekiah Usher from the Ch. of Cambridge aged about 7 days	16 day	2 mo.
Nathaniel of Mary & Francis Hudson aged about 7 day	16 day	2 mo.
Elizabeth of John Collens aged about 8 days	16 day	2 mo.
Susanna of Rebecca & Christopher Clarke aged about 8 day	23 day	2 mo.
Mehetabel of Anne & Thomas Hett	23 day	2 mo.
Mehetabel of William Salter aged about 4 day	30 day	2 mo.
Catharine of Edward Hutchinson jun. aged about 2 days	14 day	3 mo.
Sarah of Hannah & George Baldin she now wife of Richard Bradly aged about 3 yr & $\frac{1}{2}$	14 day	3 mo.
John of Hannah & John Bateman aged about 3 yr. 5 mo.	14 day	3 mo.
Hannah of Hannah & John Bateman aged about 2 yr. 2 mo.	14 day	3 mo.
Elizabeth of Hannah & John Bateman aged about 7 mo. 2 wks	14 day	3 mo.
Elisha of Benjamin Gillam aged about 8 days	21 day	3 mo.
Susanna of Alexander Adams aged about 8 days	21 day	3 mo.
John of Edward Harryson member of the Ch. at Virginia	21 day	3 mo.
Hester of Joseph & Miriam Wormall member of Ch. of Concord	21 day	3 mo.
John of Robert Shrimpton aged about 6 wks	28 day	3 mo.
Susanna of Samuel Davis aged about 3 days	28 day	3 mo.
Ephraim of Edward Bendall aged about 2 days	11 day	4 mo.
Joseph of Richard Tappin aged about 14 days	11 day	4 mo.
Joseph of Edward Dennys aged about 6 days	11 day	4 mo.
Elizabeth of Eunice & Thomas Robert aged about 2 days	11 day	4 mo.
Elizabeth of Robert Turner shoemaker aged about 5 days	18 day	4 mo.
Elizabeth of Richard Cooke aged about 5 wks 6 days	25 day	4 mo.
Joseph of Thomas Rawlings from the Ch. of Waymouth aged about 11 days	25 day	4 mo.
Samuel of Richard Wayte aged about 20 days	9 day	5 mo.
John of Abraham Deeble from the Ch. of Dorchester aged about 9 days	16 day	5 mo.
Sarah of John Leverett aged about 4 days	16 day	5 mo.
Grace of Anthony Stoddar aged about 2 day	16 day	5 mo.
Abigail of Bezaleel Payton aged about 5 days	23 day	5 mo.
John of Simon Rogers aged about 5 days	23 day	5 mo.
Sarah of Joan & Thomas Jay aged about 31 days	23 day	5 mo.
Sarai of Richard Bellingham aged about 2 days	30 day	5 mo.
Bethiah of Elizabeth & George Orrys aged about 6 days	30 day	5 mo.
James of John Sinderland aged about 7 day	6 day	6 mo.
John of William Browne from the Ch. of Salem aged about 4 day	13 day	6 mo.
John of Strong Furnell aged about 5 days	20 day	6 mo.
John of Godfrey Armitage from the Ch. of Lynn aged about 4 days	20 day	6 mo.
Benjamin of John Hurd aged about 7 day	27 day	6 mo.
Elizabeth of Edward & Margaret Lambe member of Ch. of Watertowne aged about 11 days	27 day	6 mo.
Solomon of John Blacklidge from the Ch. of Salem aged about 2 days	3 day	7 mo.
John of Sarah & James Jempson aged about 2 day	3 day	7 mo.
Maria of John Kenricke aged about 1 day	10 day	7 mo.
John of Anne & John Manning aged about 4 day	24 day	7 mo.
Barthsheba daut of Thomas Webber aged about 3 day	24 day	7 mo.
Mary of Eliah Parkman member of Ch. of Winsor aged about 4 day	24 day	7 mo.
Mercy of Rachel & Robert Woodward aged about 6 day	1 day	8 mo.

Isaiah of William Townsend aged about 3 day	5 day 9 mo.
Samuel of Thomas Buttall aged about 10 days	12 day 9 mo.
Abigail of Peter Oliver aged about 1 day	19 day 9 mo.
Hannah & } dautr's of John Maynard { aged about 4 days	26 day 9 mo.
Lydia } from the Ch. of Duxbury { aged about 4 days	26 day 9 mo.
Samuel of Valentine Hill Deacon aged about 2 days	10 day 10 mo.
John of Grace & William Rickes aged about 2 days	10 day 10 mo.
Joshua of John Winthrop Governor aged about 5 days	17 day 10 mo.
Thomas of Thomas Clarke aged about 5 days	17 day 10 mo.
Jeremiah of Jeremiah More	17 day 10 mo.
John of Hannah & John Hannifall aged about 12 day	7 day 11 mo.
Hannah of Nathaniel Willyams aged about 9 days	7 day 11 mo.
Margaret of Michael Powell from the Ch. of Dedham aged about. 8 days	14 day 11 mo.
Sarah of James Pemerton aged about 6 wks	28 day 11 mo.
Deborah of Robert Read member of Ch. of Exeter aged about 3 days	28 day 11 mo.
Palti dautr of William Parker member of Ch. of Watertowne aged about 1 mo.	4 day 12 mo.
William of Hannah & William Hanbrough member of Ch. of Plimwoth aged about 6 days	11 day 12 mo.
Hannah of Nathaniel Bishop aged about 7 days	11 day 12 mo.
John of Timothy Prout aged about 8 days	11 day 12 mo.
Edward of Matthew Ines aged about 3 days	11 day 12 mo.
Mehetable of Thomas Scottoe aged about 4 days	11 day 12 mo.
Benjamin of Robert Wing aged about 7 day	18 day 12 mo.
Nathaniel of Elizabeth & Francis Smith aged about 5 day	18 day 12 mo.
Susanna of Edmund Jacklyn aged about 33 day	8 day 12 mo.
Jonathan of Samuel Oliver aged about 7 day	25 day 12 mo.
Elizabeth of Edward Ransford aged about 7 days	25 day 12 mo.
Abel of Abel Porter aged about 3 day	25 day 12 mo.
Mary of Edward Devotion aged about 4 days	25 day 12 mo.

1649.

TOWN.

Margaret Grimsted widow died 20th — 11th mo.
 Joseph of Hugh & Sarah Gunnison born 31st — 1st month.
 Elihu of Hugh & Sarah Gunnison born 12th — 12th month.
 Stephen of Thomas & Mary Lake born 13th — 12th month.
 Dorothy of Christopher & Rebecca Clark born 6th — 11th month.
 Joseph of George & Abigail Dell born Feb.
 John Gallop died 11th month.
 Jolliff Rudock died 7th month.
 Bridget of Christopher & Anne Holland born 14th March.
 Timothy of Richard & Mary Hicks born 2nd May.
 Martha of John & Martha Bundy born 2nd Nov.
 Mary wife of John Biggs died 10th — 11th mo.
 Richard of Richard & Dorothy Norton died 10th — 12th month.
 John of John & Ruth Ingolsby died 3rd — 6th mo.
 Rebecca of Edward & Mary Ting died 16th — 1st mo.

FIRST CHURCH.

Submit of Thomas Clarke aged about 19 days	4 day 1 mo.
John of Lydia & Daniel Turell aged about 6 days	4 day 1 mo.
Rebecca of Isaac Addington aged about 4 days	11 day 1 mo.
Elizabeth of George Halsall aged about 10 days	11 day 1 mo.
Jonathan of Richard Knight aged about 8 days	11 day 1 mo.
Martha of Martha & Thomas Stanbury aged about 6 days	11 day 1 mo.
Marie of John Vyall aged about 7 days	18 day 1 mo.
Lydia of Anne & James Hudson aged about 3 days	18 day 1 mo.

Joseph of Jarvis & Mary Gould from the Ch. of Hingham aged about 14 days	25 day	1 mo.
Edward of Edward Ting aged about 6 days	1 day	2 mo.
James of John Barrell aged about 4 days	1 day	2 mo.
Joseph of Hugh Gunnyson aged about 3 days	1 day	2 mo.
John of Hannah & Richard Bradley aged about 6 days	1 day	2 mo.
Joseph of Robert Woodmansey member of Ch. of Ipswich aged about 4 days	1 day	2 mo.
John of John Ingolsby aged about 2 days	1 day	2 mo.
Joseph of Alexander Baker aged about 3 days	8 day	2 mo.
Deliverance of Alice & Henry Stevens aged about 4 days	15 day	2 mo.
Thomas of Robert Walker aged about 10 days	22 day	2 mo.
Mary of Robert Walker aged about 10 days	22 day	2 mo.
Elizabeth of James Johnson aged about 8 days	29 day	2 mo.
Jonathan of Samson Shore aged about 6 days	29 day	2 mo.
John of Robert Scott aged about 15 days	6 day	3 mo.
Samuel of Thomas Snow	6 day	3 mo.
Joseph of Joseph Phipeny member of Ch. of Hingham aged about 7 days	6 day	3 mo.
Sarah of Sarah & John Bodman aged about 1 day	13 day	3 mo.
John of Angell Hollard member of Ch. of Waymouth aged about 6 day	27 day	3 mo.
Mehetabell of Hezekiah Usher member of Ch. of Cambridge aged about 6 days	27 day	3 mo.
Mary of John Lake aged about 4 days	3 day	4 mo.
Susanna of Edward Hutchinson aged about 22 days	10 day	4 mo.
Daniel of George Parkhurst member of Ch. of Watertowne aged about 11 days	10 day	4 mo.
Peter of Peter Place aged about 2 days	17 day	4 mo.
William of Jeremiah Howchin aged about 3 days	1 day	5 mo.
Deborah of Arthur Pury aged about 4 days	1 day	5 mo.
John of John Wilson Pastor of Ch. of Dorchester aged about 2 days	8 day	5 mo.
Mary of Anne & Thomas Hett	15 day	5 mo.
Temperance of John Sweete aged about 5 days	5 day	6 mo.
Samson of John Mylam aged about 2 day	12 day	6 mo.
Mercy of Anthony Harker aged about 10 day	12 day	6 mo.
Sarah of Joanna & Samuel Northend aged about 4 day	12 day	6 mo.
Sarah of John Leverett aged about 17 days	19 day	6 mo.
Benjamin of William Davisse aged about 2 days	19 day	6 mo.
Frances dau. of Robert Turner shoemaker aged about 6 days	26 day	6 mo.
Ezechiell of Joel Jenkins from the Ch. of Braintree	16 day	7 mo.
Sarah of Richard Davenport from the Ch. of Salem	30 day	7 mo.
Sarah of Hannah & John Bateman aged about 8 days	7 day	8 mo.
Elizabeth of Thomas & Elizabeth Ryder member of Ch. of Waymouth	14 day	8 mo.
Elizabeth of Thomas Harryson Pastor of the Ch. at Virginia aged about 7 days	28 day	8 mo.
Timothy of Robert Turner Inholder aged about 6 days	4 day	9 mo.
Mary of Abigail & John Jackson aged about 6 days	4 day	9 mo.
Sarah of Francis East aged about 2 days	11 day	9 mo.
Bethiah of Hannah & William Blanchard aged about 5 days	2 day	10 mo.
Elizabeth of Richard Bellingham aged about 3 days	9 day	10 mo.
Restore of Edward Bendall aged about 17 day	30 day	10 mo.
Mary of Rebecca & Robert Winsore aged about 11 day	30 day	10 mo.
Sarah of Sarah & Gamaliel Phipeny aged about 6 days	30 day	10 mo.
Mary of Valentine Hill Deacon aged about 1 day	30 day	10 mo.
Dosithea of Thomas Savage aged about 1 day	30 day	10 mo.
Samuel of Anthony Stoddard aged about 6 day	20 day	11 mo.
Amos of Mary & Amos Richardson aged about 6 day	20 day	11 mo.
Dorathie of Rebecca & Christopher Clarke aged about 14 days	20 day	11 mo.
Anna of Sarah & Henry Messinger aged about 13 days	20 day	11 mo.
Mercy of Thomas Bumstead member of Ch. of Roxbury aged about 5 days	20 day	11 mo.

Samuel of Thomas Venner from the Ch. of Salem aged about 11 day	3 day 12 mo.
Eleazer of Theodore Atkinson aged about 8 day	3 day 12 mo.
Elizabeth of Henry Powning aged about 24 day	3 day 12 mo.
Isaac of Edmund Jackson aged about 7 day	10 day 12 mo.
Elihu of Hugh Gunnyson aged about 3 day	17 day 12 mo.
Samuel of Robert Button from the Ch. of Salem aged about 4 day	24 day 12 mo.
Samuel of Godfrey Armitage from the Ch. of Lynn aged about 2 day	24 day 12 mo.

1650.

TOWN.

James of James & Christian Allison born 20th — 8th month.
 Mary of Francis & Alice Bennet born 15th — 7th month.
 Susanna of Richard & Sibil Bennet born 2nd — 12th month.
 Dorothy wife of Simon Eyre died 11th — 6th month.
 Hannah of John & Elizabeth Fernside born 8th — 3rd month.
 Samuel of Frances & Mary Hudson born 19th — 5th month.
 John of John & Elizabeth Spooore born 16th — 10th month.
 Elizabeth of Thomas & Anne Walker born 18th — 6th month.
 Mr. Atherton Haugh died 11th — 7th month.
 Daniel of Robert & Penelope Turner born 26th — 9th month.
 Deborah of Thomas & Ann Bell born 29th Nov.
 John of George & Mary Michell born 3rd June.
 Elizabeth sonne of Edward & Jane Barker born 17th July.
 Priscilla of Samuel & Anna Davis born 3d Aug.

William Phillips Jr. was married to Martha Franklin 24th — 8th month by
 William Hibbins.
 Samuel Gallop was married to Mary Phillips 20th — 11th month by Richard
 Bellingham.

FIRST CHURCH.

Isaac of Jonathan Negoose aged about 10 days	3 day 1 mo.
Isaiah of William Toy aged about 7 days	10 day 1 mo.
Lydia of Edmund Grosse aged about 4 days	10 day 1 mo.
William of Robert Feild aged about 3 days	17 day 1 mo.
Rachel of Benjamin Thwing aged about 5 days	17 day 1 mo.
Elizabeth of John Harwood aged about 4 days	17 day 1 mo.
Samuel of Strong Furnill	14 day 2 mo.
Thomas of Robert Woodward's wife	14 day 2 mo.
John of Tho: Boyden member of Ch. of Watertowne	21 day 2 mo.
Sarah of Edward Jackson member of Ch. of Cambridge	21 day 2 mo.
Prissilla of George Kenniricke member of Ch. of Bastuble	21 day 2 mo.
Sarah of Water Senit's wife	28 day 2 mo.
Hannah of Mr. Fernide member of Ch. of Duxbury	12 day 3 mo.
Benja: of Tho: Joye's wife	12 day 3 mo.
Hannah of Howchin	19 day 3 mo.
Mary of Sheaffe	19 day 3 mo.
Lydia of Douse	26 day 3 mo.
Nath: of Euins	26 day 3 mo.
Sarah of Atwood	26 day 3 mo.
Johana of Dawes of Braintry	2 day 4 mo.
Hopestill of Richard Woodis' wife	2 day 4 mo.
Joseph of Scott	9 day 4 mo.
Mary of Richard Cooke	23 day 4 mo.
Elisha of Burden	8 day 5 mo.
Patience of Samuel Oliver	8 day 5 mo.
Israel of Thorne	14 day 5 mo.

Benjamin of	Tappin	21 day	5 mo.
Joseph of	Browne of Salem	27 day	5 mo.
Sarah of	Halsoll	27 day	5 mo.
John of	Keibye	27 day	5 mo.
Samuel of Francis	Hudson's wife	27 day	5 mo.
Martha of	Adams	27 day	5 mo.
Mary of Thomas	Willyams' wife of Exeter	11 day	6 mo.
Benjamin of	Blauge of Braintry	18 day	6 mo.
Deborah of	Townsend	25 day	6 mo.
John of	Dible	25 day	6 mo.
Timothy of	Waker	1 day	7 mo.
John of	Place	1 day	7 mo.
Sarah of	Read	1 day	7 mo.
Elizabeth of	Carr of Salisbury about 6 years old	8 day	7 mo.
John of	Inglesby	15 day	7 mo.
Priscilla of Samuel	Davis	15 day	7 mo.
Benjamin of	Dinnis	22 day	7 mo.
Obadiah of Joell	Jenke of Braintry	13 day	8 mo.
Thomas of	Clarke	20 day	8 mo.
Experience of Isaac	Waker	20 day	8 mo.
Samuel of George	Davis	20 day	8 mo.
Mary of John Hurd's	wife	20 day	8 mo.
Sarah of Hezekiah	Usher	17 day	9 mo.
Elizabeth of Richard	Wait	17 day	9 mo.
Gamaliel of Gamaliel	Wait	17 day	9 mo.
Samuel of Matthew	Ines	24 day	9 mo.
Daniel of Robert	Tourner	1 day	10 mo.
John of Richard	Knight	1 day	10 mo.
Deborah of Thos	Bell's wife	1 day	10 mo.
Bethiah daut of Robert	Woodmansey	15 day	10 mo.
John of John	Spurr	22 day	10 mo.
Hannah of John	Honifford's wife	5 day	11 mo.
Sarah of	Lewis of Situate	5 day	11 mo.
Hannah of Edward	Rainsford	12 day	11 mo.
John of Nathaniel	Bishop	26 day	11 mo.
Thomas of Thomas	Weebber	2 day	12 mo.
James of Sampson	Shoore	2 day	12 mo.
Joseph of Timothy	Proute	9 day	12 mo.
Mary of Jeremy	Moore	16 day	12 mo.
William of William	Cotton	23 day	12 mo.
Benjamin of John	Jackson	23 day	12 mo.

1651.

TOWN.

Sarah of John & Sarah Strange born 18th — 8th month.
 Samuel of George & Barbary Davis born 17th Oct.
 Hannah of Nicholas & Hannah Stone born 8th Jan.
 John of John & Susanna Sweete born 8th Sept.
 James of Francis & Alice Bennet born 14th Feb.
 Sarah of John & Emm Coddington born 4th Oct.
 Job of Hugh & Sarah Browne born 29th Mch.
 William of William & Martha Harvey born 27th Aug.
 Thomas of Thomas & Sarah Stevens born 28th Dec.
 Elizabeth of Robert & Frances Burnam born 27th — 8th month.
 Ann of Mr John & Ann Maning born 12th — 1st month.
 Mary of Samuel & Mary Gallop born 4th — 12th month.
 Jonathan of Jonathan & Mary Balston born 2nd March.
 Joseph of Henry & Elizabeth Bridgham born 17th Jan.
 Anne of John & Anne Maning born 13th March.
 Sarah of John & Mary Viall born 14 March.
 Elizabeth of Edward & Margaret Coalman born 28th — 11th month.
 Abigail of Thomas & Milcha Snow born 10th — 1st month.

Joseph of John & Christian Milam born 26th — 12th month.
 Mary of John & Christian Milam born 26th — 12th month.
 James of Francis & Alice Benit born 17th — 12th month.
 Samuel of Godfrey & Mary Armitage born 14th — 2nd month
 Elizabeth of George & Elizabeth Waye born 19th — 1st month.
 Matthew of Rice & Ann Jones born 30th — 4th month.
 Hannah of Thomas & Milcah Snow born 10th — 1st month.
 Elizabeth of John & Sarah Tuckerman born 5th — 12th month.
 Hannah of John & Ann Kenricke born 20th — 1st month.
 Asaph of Jacob & Margery Eliott born 25th — 8th month.
 Anna of Richard & Anna Bradley born 16th — 10th month.
 John of Thomas & Margery Alcocke born 2nd — 5th month.
 Rebecca of Mr Edward & Mary Ting born 13th — 5th month.
 Mary of Thomas & Mary Broughton born 5th — 5th month.
 Sarah of John & Hannah Bateman born 6th — 3rd month.
 Rachel of John & Hannah Bateman born 28th — 3rd month.
 Samuel of Samuel & Joanna Norden born 8th — 9th month
 Edward of Edward & Abigail Hutchinson born 3rd — 11th month.
 Samuel of William & Mary Lane born 23rd — 11th month.
 John of Humphrey & Sarah Cumby born 23rd — 11th month.
 Sarah of Isaac & Anne Addington born 12th — 2nd month.
 Hannah of John & Mary Barrell born 23rd — 2nd month.
 Isaac of Edward & Martha Jackson born 22nd — 9th month
 Jeremiah of Jeremiah & Easter Houchine born 5th — 9th month.
 Deborah of Francis & Catherine Dowse born 1st — 11th month.
 Samuel of John & Martha Shaw born 4th — 9th month.
 Mary of William & Martha Demsdall born 24th — 7th month.
 Nicholas of Isaac & Susanna Waker born 1st — 10th month.
 David of Benjamin & Wilmat Phipeny born 6th — 9th month.
 Thomas of Robert & Mary Feild born 1st — 10th month.
 William of Edward & Rachel Rawson born 21st May.
 Mehetabel of Thomas & Annis Buttolph born 26 — 8th month.
 Sarah of John & Alice Tincker born 2nd — 11th month.
 James of James & Sarah Jempson born 22nd — 10th month.
 Deliverance of Elias & Bridget Parkman born 3rd — 6th month.
 Elizabeth of Joseph & Elizabeth Rocke born 5th — 12th month.
 Penn of William & Hannah Townsend born 20th — 10th month.
 Deborah of Mr Samuel & Lydia Oliver born 1st — 12th month.
 Anne of Michael & Anne Ines born 6th — 12th month.
 William of Wm. Jr. & Martha Phillips born 13th — 11th month.
 William of Edward & Margaret Preston born 30th — 11th month.
 Isaac of George & Mary Dod born 3rd — 7th month.
 Jonathan of Thomas & Frances Bojden born 20th — 12th month.
 John of Christopher & Rebecca Clarke born 3rd — 12th month.
 Theophilus of David & Urslye Yeale born 14th — 11th month.
 Perez of Capt. Thomas & Faith Savage born 17th — 12th month.
 Elizabeth of David & Susanna Selecke born 1st — 12th month.
 Anna of Mr. Edward & Elizabeth Rainsford born 1st — 12th month.
 Nathaniel of Peter & Sarah Olliver born 8th — 1st month.
 Dorothy of John & Jane Bushnell born 19th — 12th month.
 Gamaliel of Gamaliel & Sarah Phipeny born 12th — 1st month.
 Robert of Robert & Rebecca Lord born 2nd month.
 Anne of Ezekiel & Anne Woodward born 10th Aug.
 Hannah of Samuel & Mary (?) Dunkin born 28th Apr.

Daniel of Robert & Penelope Turner died 4th — 2nd month.
 Ama of William Vpshall died 7th — 9th mo.
 Jeremiah of Jeremiah Houchine died 8th — 10th mo.
 Hannah of Thomas Richards deceased & Weltham his wife died 10th — 9th
 month.
 Joseph of Richard & Elizabeth Wayt aged 14 years died 20th — 9th month.
 Richard of John & Anna Webb died 30th — 10th mo.
 Sarah of George & Joan Hallsell died 16th — 10 mo.
 Sarah of Henry deceased & Joan Swan died 23rd — 10th month

Susan of John & Anna Webb died 17th — 10th mo.
 Joshua youngest son of the late John Winthrop Esq. died 11th — 11th month.
 Mary of James & Sarah Astwood died 21st — 11th mo.
 Faith wife of Capt. Thomas Savage died 20th — 12th mo.
 Susan of Philip Phillips died 14th — 10th month.
 Sarah of John & Elizabeth Purchase died 14th — 12th mo.
 Mary wife of Mr John Coggan died 14th — 11th month.
 Elizabeth of Job & Elizabeth Bishop of Ipswich died 27th — 12th month.
 Margaret wife of Isaac Cullimore died 13th — 10th month.
 Hannah of Robert & Abigail Button died 20th — 1st month.
 Alice wife of Nathaniel Souther died 27th — 7th mo.
 ——— Pateson of Lyme in the County of Dorset died aboard the ship John & Sarah whereof was master Mr. John Greene 27th — 12th mo.

Nicholas Phillips was married to Hannah Salter 4th — 10th month by Richard Bellingham Esq.
 William Philpot was married to Ann Hunn widow by Richard Bellingham Esq 16th — 10th mo.
 John Cole son of Isaac Cole was married to Susanna Hutchinson daughter of the late William Hutchinson of Road Island 30th — 10th month by Richard Bellingham Esq.
 William Baker was married to Mary Eddington dau. of Edmund Eddington 23rd 7th mo.
 Edmund Madocks was married to Rebecca Munings 14th — 11th month by Thomas Dudley Dept. Governor.
 Samuel Davis was married to Sarah Thayer daughter of Richard Thayer 20th — 5th month by William Hibbins.
 Joseph Brisco was married to Abigail Compton dau. of John Compton 30th — 11th mo. by William Hibbins.
 Ambrose Due was married to Ester Barker dau. of Nicholas Barker 10th — 12th mo. by Wm. Hibbins.
 John Coggan was married to Mrs Martha Winthrop by John Endicott Governor 10th — 1st mo.
 Peter Till was married to Elizabeth Nick 26th — 12th month by William Hibbins.
 Isaac Cullimore was married to Margery Page 22nd — 11th month by Richard Bellingham.
 Thomas Saxton was married to Ann Atwood widow 10th — 1st month by Richard Bellingham.
 William Paddy of Plymouth was married to Mary Paiton of Boston widow 3rd — 10th mo. by Richard Bellingham.

FIRST CHURCH.

Mercy of Francis Smyth's wife	9 day	1 mo.
Samuel of James Johnson	16 day	1 mo.
Thomas of Matthew Barnes of Braintry	16 day	1 mo.
Elizabeth	23 day	1 mo.
Sarah	23 day	1 mo.
Hester	23 day	1 mo.
Joseph of John Stevenson	23 day	1 mo.
Samuel of John Bodman's wife	23 day	1 mo.
Naomy of William Parsons	6 day	2 mo.
Sarah of W ^m Hawghton's wife	6 day	2 mo.
James of James Pemerton	13 day	2 mo.
Joana of Michael Wills	13 day	2 mo.
Sarah of Isaac Adington	20 day	2 mo.
Elizabeth of Edward Devotion	20 day	2 mo.
Hannah of John Barrill	27 day	2 mo.
Elizabeth, of John Leverit	4 day	3 mo.
John of John Harrod	4 day	3 mo.
Ephraim of William Davice	18 day	3 mo.
Lydia of Thomas Roberts	18 day	3 mo.

Simion, of Anthony Stoddard	25 day	3 mo.
Elizabeth, of Vall. Hill.	25 day	3 mo.
Experience of George Orice's wife	25 day	3 mo.
William of Rawson of Newberry	25 day	3 mo.
Sarah of Alexander Baker	25 day	3 mo.
Rachel of John Bateman's wife	1 day	4 mo.
John of Richard Wilson's wife	1 day	4 mo.
Sarah of William Stanbery's wife	1 day	4 mo.
Mary of Strong Furnill	1 day	4 mo.
John of William Blancher	8 day	3 mo.
John of William Salter	8 day	4 mo.
Deane of Deane Winthorp's wife	15 day	4 mo.
John of Tho: Alcocke	6 day	5 mo.
Rebecca of Edward Tinge	20 day	5 mo.
Arthur of Arthur Perry	27 day	5 mo.
Elizabeth of Simon Rogers	3 day	6 mo.
Deliverance son of Elias Partman	10 day	6 mo.
Jacob of Elizabeth Rider of Waymouth	10 day	6 mo.
Richard of Goody Chapman of Braintry	17 day	6 mo.
John of Benjamin Negoose	31 day	6 mo.
Mary of Blacklech of Salem	7 day	7 mo.
Humphry, of Daniel Turant.	7 day	7 mo.
Mary of Angill Hollard	14 day	7 mo.
Joanna of Samuel Sindall of Newbery	21 day	7 mo.
John of John Sweete.	21 day	7 mo.
Edward of John Tuttill's wife of Linn	21 day	7 mo.
Mehetabel of Thomas Buttole	28 day	7 mo.
Mary of Henry Pownening	5 day	8 mo.
Sarah of Strang's wife	26 day	8 mo.
Asaph of Jacob Eliot our elder, dec.	2 day	9 mo.
Jeremiah of Jeremiah Howchin	9 day	9 mo.
Samuel of Samuel Norden's wife	16 day	9 mo.
Isaac of Edmund Jackson	23 day	9 mo.
Nicholas of Isaac Waker	7 day	10 mo.
Thomas of Robert Feild	7 day	10 mo.
Deborah, of Francis Dowse	7 day	10 mo.
John of Robert Woodward's wife	14 day	10 mo.
John of Richard Bradley's wife	22 day	10 mo.
Penn of William Townsend.	28 day	10 mo.
James of James Jemson's wife	28 day	10 mo.
Edward of Edward Hutchison	4 day	11 mo.
Elizabeth of Joseph Rocke	8 day	12 mo.
Elizabeth of David Sellicke.	8 day	12 mo.
Ann of Edward Rainsford.	8 day	12 mo.
Deborah of Samuel Oliver	8 day	12 mo.
Ann of Matthew Ines.	8 day	12 mo.
John of John Clarke's wife	8 day	12 mo.
Joseph } sons of	8 day	12 mo.
Benjamin } Thomas Emans	8 day	12 mo.
Pereez of Thomas Savage	22 day	12 mo.
John of John Merion.	22 day	12 mo.
Jonathan of William Boyden	22 day	12 mo.
Naomy daut of George Allin's wife	22 day	12 mo.

1652.

TOWN.

Mary of Edward & Jane Barker born 15th Feb.
 Thomas of James & Sarah Pemberton born 17th Feb.
 John of George & Barbary Davis born 3rd June.
 Daniel of Francis & Mary East born 21st Sept.
 Sarah of George & Mary Michell born 8th Dec.
 Catherine of Edward & Abigail Hutchinson born 13th Feb.

Joanna of Christopher & Anne Holland born 1st Feb.
Mary of Robert & Judith Ratchell born the last of Aug.
Tabitha of Matthew & Tabitha Abda born 24th Nov.
Hugh of Hugh & Sarah Browne born 16th July.
Thomas of William & Martha Harvey born 16th Aug.
Joanna of Henry & Mary Stevens born 28th May.
Hannah of Thomas & Elizabeth Sowell born 2nd Nov.
Joanna of William & Elline Furnell born 9th Dec.
Benjamin of Joseph & Mary Bastarr born 4th April.
Sarah of Nathaniel & Sarah Hunn born 8th July.
Elizabeth of Nicholas & Hannah Phillips born 24th Feb.
Daniel of Daniel & Esther Travis born 3rd Oct.
Mary of Jeremiah & Easter Fitch born 1st March.
John of John & Mary Barrell born 15th Mch.
Mary of Samuel & Joanna Sendall born 13th March.
William of Edward & Mary Ting born 3rd March.
William of William & Ann Pollard born 20th March.
Elizabeth of Thomas & Elizabeth Watkins born 27th Nov.
Mary of Thomas & Elizabeth Williams born 30th July.
Benjamin of Alexander & Elizabeth Baker born 16th March.
Elizabeth of Thomas & Elizabeth Pecke born 19th Jan.
Mary of John & Hannah Bateman born 16th Jan.
Isaac of John & Sarah Merion born 20th Jan.
Abiel of William & Grace Toy born 21st Jan.
Elizabeth & Mary twins & daughters of John & Judith Hull born 23rd Jan.
Joanna of Richard and Joanna Knight born 24th Jan.
John of John & Hannah Haniford born 29th Jan.
Rebecca of William & Ann Cotton born 30th Dec.
Alice of Mathew & Rebecca Barnes born 22nd Dec.
John of Alexander & Mary Adams born 26th Feb.
Sarah of Isaac & Ann Adington born 11th Feb.
Thomas of Robert & Mary Feild born 28th Nov.
John of Thomas & Anne Waker born 15th March.
Sarah of Anthony & Deborah Stoddard born 21st Oct.
Susanna of Strong & Elline Furnell born 14th Sept.
Elizabeth of Henry & Elizabeth Blake born 28th Oct.
Elizabeth of Thomas & Sarah Yeo born 1st Oct.
Judith of William & Cicilla Talbott born 24th July.
Elizabeth of Peter & Alice Place born 21st Oct.
Mary of John & Abigail Jackson born 25th Oct.
Edward of Benjamin & Deborah Thwing born 14th Nov.
Susanna of William & Susanna Hawes born 15th Oct.
James of James & Mary Hawkins born 3rd July.
Mehetabel of William and Martha Brenton born 28th Nov.
Maria of Mr Symon & Martha Aeirs born 26th — 1st month.
Mehetabel of William & Elizabeth Spowell born 31st — 1st month.
Rebecca of Nathaniel & Alice Bishop born 8th — 2nd month.
Rebecca of John & Abigail Leader born 10th — 2nd month.
Rebecca of Thomas & Catherine Downes born 22nd — 2nd month.
John of John & Persis Harrison born 2nd — 2nd month.
Mary of Humphrey & Mary Millam born 23rd — 3rd month.
Robert of Robert deceased & Elizabeth Turner born 17th — 3rd month.
Simon of Simon Jun. & Lydia Eire born 6th Aug.
John of William & Hannah Blanchard born 18th Sept.
Benjamin of George & Joan Hallsell born 18th Sept.
Samuel of Richard & Martha Thurston born 11th July.
Mary of Edmund & Ann Grosse born 9th Sept.
Jeremiah of Jeremiah & Sarah Merills born 22nd Augt.
Elizabeth of Capt. Richard & Elizabeth Davenport born 13th Sept.
Sarah of Jacob & Margaret Sheafe born 14th Sept.
Moses of John & Jane Huntley born 1st July.
Joseph of Philip & Anne Long born 16th Aug.
Joseph of Abraham & Elizabeth Hagborne born 8th Oct.
Rebecca of Joshua & Lydia Scottow born 10th Oct.

William of William of Pulling pointe & Sarah Hasey born 15th Sept.
 Benjamin of George & Abigail Dill born 27th — 2nd month.
 Mary of William & Mary Baker born 16th — 3rd month.
 Joseph of William & Friswit Osborne born 6th — 2nd month.
 Mehetabel of Thomas & Sarah Webber born 10th — 4th month.
 Rebecca of Henry & Sarah Messinger born 26th — 4th month.
 Eliakim of Robert and Sarah Waker born 3rd — 5th month.
 Elizabeth of Joseph & Dorothy Phipeny born 10th — 4th month.
 Stephen of Amos & Sarah Richardson born 14th — 4th month.
 Mary of John & Mary Phillips born 13th July.
 Edward of Robert & Ann Knight born 5th Feb.
 Susanna of George & Susanna Alline born 11th May.
 Jeremiah of Jeremiah & Ester Houchine born 26th Nov.
 Anne of Capt. John & Sarah Leveritt born 23rd Nov.
 Benjamin of John and Mary Hurd born 28th Nov.
 Mehetabel of Mark & Mary Hands born 21st Oct.
 Thomas of Robert & Rebecca Winsor born 30th Sept.
 Joseph of Thomas & Anne Dure born 24th June.
 John of John & Hannah Anger born 16th Sept.
 Michael of Michael & Millered Willis born 11th Nov.
 Sarah of Joseph & Elizabeth Rocke born 17th Jan.
 Mary of Thomas & Hannah Rawlins born 24th Nov.
 Joshua of John & Martha Coggan born 15th Dec.

Mary of William & Mary Baker died 25th — 6th mo.
 Sarah of John & Alice Tinker died 28th — 6th mo.
 John of Robert & Sarah Waker died 22nd — 5th mo.
 Sarah of Isaac & Ann Addington died 2nd — 6th mo.
 John of John & Elizabeth Farnum died 26th — 6th mo.
 Robert of Robert deceased & Elizabeth Turner died 21st — 6th month.
 Zechary of Zechary & Elizabeth Phillips died 2nd — 7th month.
 Philip of Abram & Bitteris Josline died 2nd — 6th mo.
 Bozon Allen died 14th — 7th month.
 William Ludkine drowned 27th — 1st month.
 Samuel Olliver drowned 27th — 1st month.
 George Bennet drowned 27th — 1st month.
 David Nichols died 13th — 1st month.
 Adam Winthropp Esq. died 24th — 6th month.
 John of Robert & Rachel Woodward died 23rd — 6th month.
 Ephraim of William & Margaret Davis died 2nd — 6th month.
 William of William & Anne Cotton died 29th — 6th month.
 Mehitabel son of Thomas & Sarah Webber died 7th — 7th month.
 Samuel of John & Martha Shaw died 15th — 7th mo.
 Joseph of Philip & Ann Long died 28th — 6th mo.
 Nathaniel of Arthur Gill died 2nd — 7th mo.
 James of Richard & Joanna Knight died 27th — 7th month.
 Gamaliel of Gamaliel & Sarah Phipeny died 8th — 7th month.
 William Ivery carpenter & inhabitant of Lynn died 3rd — 8th month.
 Frances wife of Hezekiah Vsher died 25th — 2nd mo.
 Zechariah of Zechariah & Elizabeth Phillips died 4th — 7th month.
 Joseph of John & Sarah Stephenson died 10th — 7th month.
 Martha wife of Edmund Jackson deceased 12th — 9th month.
 Thomas of Thomas & Anne Dure died 3rd — 10th mo.
 Ann wife of James Hudson died 3rd — 10th mo.
 Matthew Parker died 19th — 7th month.
 Thomas Standbury died 26th — 7th month.
 Arthur Perry died 9th — 8th month.
 William Blanchard died 7th — 8th month.
 Mr John Cotton Teacher of the Church of Boston died 15th — 10th month.
 Elizabeth of John & Judith Hull died 12th mo.
 Mary of John & Judith Hull died 30th — 11th mo.
 John of Francis & Sarah Pittney died 17th — 8th mo.
 John Stark Scottishman servant-to Lieut. William Hudson died 22nd — 3rd month.

Mercy of Francis & Elizabeth Smith died 4th—7th month.
 John of John & Hannah Haniford died 7th—12th month.
 Capt. William Ting died 18th—11th month.
 Jane wife of Capt. William Ting died 3rd—8th mo.
 Susan of Strong Furnell died 21st—7th mo.
 John of Robert & Mary Wright died 22nd—4th mo.
 Joanna of Christopher & Ann Holland died 1st—3rd month.
 Hugh of Hugh & Sarah Browne died 16th—5th mo.
 Ellinor of Henry & Mary Shrimpton died 9th—1st month 1652?
 Thomas Oddingsalls a stranger deceased at Mr. Rucks house at Boston in New
 England 21st—4th month.

John Cheeckley was married to Ann Eires daughter of Mr Symon Eires
 5th—1st month by William Hibbins.
 Edward Allen of Boston was married to Martha Waye 7th—3rd month by
 Thomas Dudley.
 Nath Gallop was married to Margaret Eueley 11th—4th month by Richard
 Bellingham.
 Edward Yeomans was married to Elizabeth Joslin 21st—4th month by Rich-
 ard Bellingham.
 Polus Lumerus was married to Margaret Clemons widow 1st—5th month by
 Wm Hibbins.
 Joseph Howe was married to Frances Willey 16th—5th month by William
 Hibbins.
 William Ballantine was married to Hannah Hollard daughter of Angel Hol-
 lard 23rd—5th mo by William Hibbins.
 Silvester Harbert was married to Lucie Adams 21st—7th month by William
 Hibbins.
 Capt Thomas Savage was married to Mary Simmes the daughter of Zechariah
 Simmes Pastor of the Church of Christ in Charlestown by Increase Nowell
 15—7th month.
 Thomas Love was married to Hannah Thurston 23rd—7th month by Richard
 Bellingham.
 Thomas Edzall was married to Elizabeth Ferman 16th—7th month by
 Richard Bellingham.
 Edward Ellis was married to Sarah Blott daughter of Robert Blott of Boston
 By Thomas Dudley Dept Govr 6th—8th month.
 Matthew Grosse was married to Mary Trott by Thomas Dudley Dept Govr
 5th—8th month.
 Hezekiah Vsher was married to Elizabeth Simes daughter of Zechariah Simes
 Pastor of the Church of Christ at Charlestown 2nd—9th month by Increase
 Nowell.
 Nath Adams was married to Elizabeth Purmott daughter of Philemon Purmott
 24th—9th month by Richard Bellingham.
 Edmund Jackson was married to Mary Gawdren widow 7th—11th month by
 Richard Bellingham.
 James Burgesse was married to Lydia Meed 19th—8th month.
 John Mosse was married to Mary Jupe 24th—10th month by Richard Bel-
 lingham.
 Thomas Robinson of Scituate was married to Mary Woodey widow 10th—
 11th month by William Hibbins.
 Edward Hull son of Robert Hull of Boston was married to Elinor Newman
 20th—11th month by William Hibbins.
 James Hudson was married to Rebecca Browne daughter of William Browne
 of Boston 3rd—12th month by William Hibbins.
 John Samuel was married to Lucie Wight widow 24th—10th month by Rich-
 ard Bellingham.
 Thomas Bill was married to widow Elizabeth Nichols 14th—11th month by
 Richard Bellingham.
 William Awbrey merchant was married to Rachel Rawson daughter of Edward
 Rawson 18th—11th month by Wm Hibbins.
 Simon Lynde was married to Hannah Newgate daughter of John Newgate of
 Boston 22nd—12th month by William Hibbins.

William Hinckesman was married to Mary Philberd 20th—11th month by Mr. Glover.

Peter Wittoms was married to Redgon Clarke 17th—4th month by William Hibbins.

William Greenough was married to Elizabeth Vpshall daughter of Nicholas Vpshall of Boston 4th July by William Hibbins.

FIRST CHURCH.

Joseph of John Millam	7 day	1 mo.
Mary of John Millam	7 day	1 mo.
Jarat of Jarat Bourne	7 day	1 mo.
Elizabeth of Anthony Harker	7 day	1 mo.
Joshua of Parkis of Watertowne	7 day	1 mo.
Nathaniel of Potter Oliver	14 day	1 mo.
Abigail of Thomas Snow	14 day	1 mo.
Gamaliel of Gamaliel Phipeny's wife	14 day	1 mo.
Ann of John Manning's wife	21 day	1 mo.
Joseph of Henry Bridgham	22 day	1 mo.
Sarah of John Viall	22 day	1 mo.
Thomas of Walter Sennet's wife	28 day	1 mo.
Maria of Simon Ayres	4 day	2 mo.
Rebecca of Nathaniel Bishop	11 day	2 mo.
Elizabeth of Richard Waight	18 day	2 mo.
Hannah of John Kenniricke	18 day	2 mo.
Samuel of Godfrey Armitage	18 day	2 mo.
John of John Harrisson	25 day	2 mo.
Robert of Robert Turner	23 day	3 mo.
John of George Davis	6 day	4 mo.
Benjamin of George Dill of the New Ch.	6 day	4 mo.
Susannah of Susannah & George Allin	6 day	4 mo.
Mehetabel of Tho: Weebber	13 day	4 mo.
Steven of Amos Richisson's wife	20 day	4 mo.
Elizabeth of David Phipeny	20 day	4 mo.
Rebecca of Sarah & Henry Messinger	27 day	4 mo.
Eliakim of Robert Waker	4 day	5 mo.
Samuel of Martha & Richard Thurston	11 day	5 mo.
Ann of Richard Bellingham	26 day	5 mo.
Benjamin of John Sunderland	26 day	5 mo.
Joseph of Philip Long's wife	22 day	6 mo.
Matthew of Dorcas a Negro of Dorchester	12 day	7 mo.
John of William Blanchard	19 day	7 mo.
Elizabeth of John Damford of Salem	19 day	7 mo.
Mary of Edmund Groose	19 day	7 mo.
Susannah, of Strong Furnill	19 day	7 mo.
Benjamin, of George Halsoll	19 day	7 mo.
Sarah of Jacob Sheafe	23 day	7 mo.
Thomas of Rebecca & Thomas Winsor	3 day	8 mo.
Elizabeth of Henry Blauge	3 day	8 mo.
Elizabeth of Thos: Yoo's wife	3 day	8 mo.
Rebecca of Josua Scotto	10 day	8 mo.
John of Abram Hagbourne	10 day	8 mo.
Susan of William Dawes	17 day	8 mo.
William of William Asey's wife	17 day	8 mo.
Eliza of Joan & Thomas Jay	17 day	8 mo.
Sarah of Anthony Stoddard	24 day	8 mo.
Sarah of John Jackson	31 day	8 mo.
Elizabeth of Peter Place	7 day	9 mo.
Mehetabel, of Marke Haines	7 day	9 mo.
Edward of Benjamin Thwing	14 day	9 mo.
Daniel of Francis East	21 day	9 mo.
Ann of John Leaverit	28 day	9 mo.
Jeremiah of Jeremiah Howchin	28 day	9 mo.
Mary of Rawlins of Waymouth	28 day	9 mo.

Calib of John Coggan	26 day 10 mo.
Alice of Matthew Barnes of Braintry	26 day 10 mo.
Rebecca of William Cotton	2 day 11 mo.
Samuel of Samuel Damford pastor of Ch. of Roxbery	16 day 11 mo.
Abihell of William Toye	23 day 11 mo.
Sarah of Joseph Rocke	23 day 11 mo.
Mary of John Bateman's wife	23 day 11 mo.
Mary of John Hull	30 day 11 mo.
Elizabeth of John Hull	30 day 11 mo.
John of Hannah & John Honyford	30 day 11 mo.
Isaac of John Meriam	30 day 11 mo.
John of Alexander Adames	13 day 12 mo.
Sarah of Isaac Adington	13 day 12 mo.

1653.

TOWN.

Redemption of Robert & Elizabeth Scott born 2nd March.
 James & John twins of James & Abigail Johnson born 7th March.
 Abigail of John & Abigail Leader born 29th May.
 Thomas of Mr. Thomas & Mary Broughton born 26th May.
 Robert of Robert & Mary Wright born 16th June.
 Maria of Jonathan & Jane Negus born 6th July.
 John of John & Ruth Ingolesby born 10th July.
 Joseph of Joseph & Frances Howe born 23rd June.
 Mary of John & Alice Tincker born 2nd July.
 Sarah of Capt. Thomas & Mary Savage born 25th June.
 Martha of Philemon & Elizabeth Pormott born 16th June.
 William of Lieut. William & Margaret Davis born 25th June.
 Mary of Robert & Sarah Willis born 18th July.
 Mary of George & Mary Dod born 5th July.
 Lydia of John & Elizabeth Ferniside born 3rd April.
 Benjamin of Benj. & Wilmot Phipeny born 6th April.
 John of John & Ann Checkley born 21st April.
 John of George & Mary Munjoy born 17th April.
 Mary of William & Mary Holloway born 2nd April.
 John of John & Jane Mavericke born 18th April.
 Hezekiah of John & Elizabeth Harwood born 27th April.
 Mary of John & Mary Tuttle born 28th April.
 John of William & Mary Gilford born 14th May.
 Thomas of Robert & Rebecca Lord born 18th May.
 William of Timothy & Margaret Prout born 23rd May.
 Samuel of Sylvester & Lucy Harbart born 12th June.
 Martha of Matthew & Mary Grosse born 29th June.
 Hannah of Gamaliel & Sarah Phipeny born 29th July.
 Peter of Samuel & Mary Johnson born 2nd July.
 Martha of David & Mary Faulkner born 30th March.
 Mary of Sargt Thomas & Mary Lake born 27th July.
 John of Mordica & Alice Nichols born 18th Aug.
 Eunice of Thomas & Eunice Roberts born 18th Aug.
 Benjamin of Stephen & Jane Butler born 2nd Aug.
 Sarah of Edward & Martha Alline born 22nd Aug.
 John of William & Hannah Townsend born 3rd Sept.
 Elizabeth of John & Persis Harrison born 2nd Aug.
 John of Samuel & Mary Flacke born 12th March 1652-3.
 Nathaniel of Nathaniel & Mary Adams born 10th Sept.
 Mary of Edward & Margaret Coleman born 12th Sept.
 Mary of John & Thomasine Scarlet born 21st Sept.
 Jane of John & Thomasine Scarlet born 21st Sept.
 Richard of Richard & Sibbell Bennet born 3rd Sept.
 Elizabeth of Richard & Frances Woody born 19th Sept.
 Martha of Robert & Ann Knight born 1st Sept.
 Hannah of Benjamin & Elizabeth Negus born 2nd Oct.

John of William & Hannah Ballantine born 29th Sept.
Joseph of Thomas & Susanna Bumstead born 24th Oct.
Naomi of Francis & Catherine Dowse born 26th Oct.
Robert of Robert & Mary Field born 11th Sept.
Samuel of Thomas & Ann Saxton born 8th Oct.
Sarah of James & Sarah Balston born 26th Aug.
Elizabeth of Richard & Jane Chritchley born 11th Nov.
Elizabeth of Edward & Margaret Cowell born 17th Aug.
Joseph of John & Sarah Bodman born 17th Oct.
Nathaniel of William & Mary Paddy born 5th Nov.
Samuel of Simon & Hannah Lynde born 1st Dec.
Nathaniel of Samuel & Joanna Norden born 27th Nov.
Deane of Deane & Sarah Winthrop born 6th Sept.
Sarah of Francis & Mary Hudson born 27th Nov.
Abigail of Sampson & Abigail Shore born 6th Dec.
John of James & Rebecca Hudson born 8th Nov.
Sarah of George & Elizabeth Oris born 16—
Joseph of Henry & Alice Largine born 23rd Nov.
Joseph of Thomas & Anne Bell born 1st Nov.
John of William & Mary Baker born 14th Dec.
Joanna of Angel & Catherine Hollard born 17th Dec.
Hannah of Hezekiah & Elizabeth Vsher born 29th Dec.
Mary of Edward & Margaret Preston born 1st Jan.
Joseph of Daniel & Lydia Turell born 27th Dec.
Stephen of Anthony & Barbary Stoddard born 6th Jan.
John of James & Mary Dennis born 6th Dec.
Mary of William & Ann Cole born 6th Dec.
John of Simon & Martha Eire born 19th Feb.
Constancy of Humphrey & Mary Milam born 15th Dec.
Sarah of Ezekiel & Anne Woodward born 21st Jan.
Hannah of Gamaliel & Sarah Phipeny born 25th July.
James of John & Sarah Stephenson born 1st Oct.
John of Strong & Elline Furnell born 28th Jan.
John of William & Mary Lane born 5th Feb.
Elizabeth of Mathew & Ann Grosse born 30th Jan.
Ebenezer of Jacob & Margaret Sheafe born 4th Feb.
Josiah of Nicholas & Hannah Stone born 4th Feb.
Thomas of John & Joan Baker born 12th Feb.
Mary of John & Susanna Sweete born 28th Jan.
Anna of John & Anna Chamberlin born 6th Feb.
John of Robert & Catherine Nanny born 16th Feb.
George of George & Deborah Burrell born 13th Feb.
James of Emanuel & Christian Fryer born 7th Oct.
Elnathan of George & Susanna Allen born 26th Dec.
Joanna of Christopher & Anne Holland born 13th Oct.
Sarah of Jeremiah & Ester Houchine born 10th March.
Ann of Robert & Judith Rachell born 4th Feb.
John of Ambrose & Mary Bennet born 19th Feb.
Jacob of Hope & Rachell Alline born 22nd Feb.
John of Richard & Rebecca Wayte born 1st Nov.
John of John & Martha Amey born 12th March.
Samuel of William & Joanna Whitwell born 15th March.
Mary of Henry & Julian Lamprey born 8th March.
John of Thomas & Elizabeth Watkins born 21st March.
John of John & Emm Coddington born 9th Feb.
Berachiah of Edward & Martha Arnold born 22nd Feb.
William of William & Mary Hinckesman born 29th Jan.
Martha of John & Martha Mellows born 8th Feb.
Mehetabel of Edmund & Susanna Jackline born 15th Feb.
Sarah of Hugh & Sarah Browne born 16th Aug.
William of Anthony & Alice Shaw born 21st Jan.
Hannah of John & Hannah Buckman born 5th July.
Mary of Peter & Redigon Wittoms born 15th April.
Mary of John & Martha Bundy born 5th Oct.

Thomas of Thomas & Elizabeth Sowell born 13th July.
 Joanna of William & Mary Smaledge born 15th April.
 James of James & Mary Hawkins born 18th March.
 Jonas of Thomas & Sarah Stevens born 27th Oct.
 Sarah of Ezekiel & Ann Woodward born 14th July.
 Samuel of John & Elizabeth Wilkey born 3rd April.
 Elizabeth of Richard & Jane Critchly born 28th Nov.
 John of Edward & Jane Barker born 15th Jan.
 Rebecca of William & Elizabeth Ingram of Rumney Marsh born 26th Sept.

John of Henry & Mary Willis died 8th — 1st mo.
 Jane wife of Augustine Lindon died 16th — 1st mo.
 Samuel of Augustine Lindon died 26th — 1st mo.
 John of James & Christian Alleson died 2nd — 2nd mo.
 John of John & Mary Barrell died 27th — 3rd mo.
 Clement Critchet servant of John Sunderland died 29th — 3rd month.
 Rebecca wife of Walter Merry died 4th — 5th mo.
 Margaret wife of Lieut. William Davis died 3rd — 5th mo.
 Jane wife of Richard Peacocke died 29th — 5th mo.
 Lydia wife of Mr. Simon Eire died 10th — 6th mo.
 Elizabeth of Joseph & Dorothy Phipeny died 14th — 5th mo.
 Hannah wife of John Hanniford died 16th — 6th mo.
 Mary of Thomas & Mary Lake died 1st — 7th mo.
 Richard Walters mate of Dickory Carwithy died 3rd — 6th month.
 Thomas Millerd of Newbery died 1st — 7th month.
 Mary Fisher widow died 27th — 7th month.
 Dickery Carwithen shipmaster died 6th — 7th mo.
 Mary of George & Mary Dod died 4th — 8th mo.
 Thomas of Robert & Rebecca Lord died 6th — 8th mo.
 Lucie wife of John Andrewes died 1st — 7th mo.
 Elizabeth Howen widow died 27th — 7th mo.
 Susanna wife of William Read died 12th — 8th mo.
 Robert Boltin of Saffron Walden in England a seaman was accidentally slain at Nantasket in New England by a ship gun 28th — 5th mo.
 Paul Michell a fisherman living at Craithold in England deceased at William Coursers house at Boston in New England died intestate 18th — 9th month.
 Hannah of Mr. John Olliver died 11th — 9th month.
 Susanna of David Sellick died 10th — 9th month.
 Henry Mason servant to James Everill of Boston died 10th — 9th month.
 Elias Manyard mariner of Sidmouth in Devonshire died 4th — 9th month.
 Susan of Edward Breecke of Dorchester servant to Mr. William Paddy deceased 11th — 9th month.
 Richard neger servant of Capt. Robert Keayne died.
 Sibbell wife of Richard Bennet died 13th — 7th mo.
 David of David & Mary Evons died 2nd — 9th month.
 John Looe died 1st — 10th month.
 Malachy Browning died at Mr. Robert Scotts house 27th — 9th month.
 Rachel of Thomas & Elizabeth Clarke died 16th — 9th month.
 John of James & Joanna Davis died 13th — 9th mo.
 Jonathan of Thomas & Elizabeth Wiborne died 10th — 10th month.
 John Franckline kinsman to Wm. Franckline of Boston died 26th — 9th month.
 Rebecca wife of James Hudson died 14th — 9th mo.
 Joseph of Thomas & Ann Bell died 29th — 9th mo.
 Peter of John & Abigail Jackson died 5th — 9th mo.
 Benjamin of John and Abigail Jackson died 11 — 9th mo.
 Ezra Cane of Fingworth in Lecestershire died 4th — 7th month.
 John Robinson of Fiddingworth in Lecestershier died 7th — 7th month.
 James of William & Hannah Browne died 15th — 9th month.
 Richard Done neger servant to Capt. Robt. Keayne died 11th — 9th mo.
 Richard of Richard & Mary Chapman died 17th — 9th month.
 Elizabeth of James & Abigail Johnson died 11th — 9th month.
 Mary of William merchant & Ann Cole died 23rd — 10th month.
 Nathaniel Edwards merchant died 2nd — 11th mo.

John Whittingham son in law to Mr. Simon Eire died 7th — 9th month.
 Zacheus of Richard & Elizabeth Fairebanks died 10th — 9th month.
 William King servant to George Hallsell died 14th — 10 month.
 Elizabeth of Edward & Elizabeth Page died 19th — 9th month.
 John of James & Rebecca Hudson died 21st — 16th mo.
 Rebecca wife of Thomas Leader died 16th — 10th mo.
 Patience of Samuel & Lydia Olliver died 26th — 9th month.
 Isabel wife of William Caustine died 25th — 11th mo.
 Richard of Richard & Sibbell Bennet died 26th — 12th mo.
 Elizabeth of Francis & Alice Bennet died 17th — 11th month.
 Naomi of William & Judith Cope died 8th — 8th month.
 Ralph Waldren born in Barbadoes died 29th — 9th month.
 Sarah of Mr. Robert Woodmansey died 10th — 9th mo.
 William Dening died 20th — 11th month.
 Robert Woodward died 21st — 9th month.
 Jeremiah of Robert & Rachel Woodward died 26th — 9th month.
 Joseph Shaw died 13th — 10th month.
 Sarah of Hugh & Sarah Browne died 2nd — 11th mo.
 Hannah of William Holloway died last 8th month.

Edmond Browne was married to Elizabeth Oklye 14th — 12th mo. by Richard Bellingham Dep. Govr.
 John Lowle was married to Hannah Proctor daughter of George Proctor of Dorchester 3rd — 1st month by Wm Hibbins.
 William Jaye was married to Mary Hunting daughter of John Hunting of Dedham? ———.
 Samuel Mattocke was married to Constance Fairebanks daughter of Richard Fairebanks of Boston 30th — 1st month by William Hibbins.
 Anthony Shaw was married to Alice Stanare 8th — 2nd month by Increase Nowell.
 John Gilbert was married to Mary Eaton 5th — 3d month by Thomas Dudley Dep. Govr.
 Jeremiah Beels of Hingham was married to Sarah Ripley daughter of William Ripley of Hingham at Boston 26th — 8th month by William Hibbins.
 Habbacuke Glover was married to Hannah Eliott daughter of John Eliott teacher of the Church of Christ at Roxbury 4th — 3rd month by Thomas Dudley Dept. Govr.
 Joseph Jewitt of Rowley was married to Ann Allen widow form. wife of Capt. Bozon Allen of Boston 13th — 3rd month by Richard Bellingham.
 Isaac Bull was married to Sarah Parker daughter of John Parker 22nd — 4th month.
 John Sandy was married to Ann Holmes 7th — 5th month by William Hibbins.
 Ambrose Dart was married to Anne Adis daughter of William Addis of Cape Ann 24th — 4th month.
 John Chamberline was married to Anne Browne daughter of William Browne of Boston 19th — 3rd month by William Hibbins.
 George Manning was married to Mary Haroden 15th — 5th month.
 William White & Phillip Wood were married 4th — 6th month.
 Thomas Spaule & Marry Gutteridge were married 18th — 6th month by William Hibbins.
 Abram Browne was married to Jane Skipper 19th — 6th month by William Hibbins.
 Walter Merry was married to Mary Doling 18th — 6th month by Mr. Glover.
 William Russell was married to Alice Sparrow widow 7th — 7th month.
 Isaac Page was married to Damaris Shattock 30th — 7th month by William Hibbins.
 Ambrose Bennet was married to Mary Simons 15th — 2nd month by William Hibbins.
 Joshua Rogers was married to Ann Fisen 12th — 8th month by William Hibbins.
 Andrew Cload was married to Elizabeth Bugby 29th — 7th month by William Hibbins.

Charles Pretious was married to Rebecca Martine 17th — 9th month by John Glover.

John Endicott son and heir to the worshipful John Endicott was married to Elizabeth Houchin daughter of Jeremiah Houchin of Boston 9th — 9th month by Richard Bellingham.

William Pittman was married to Barbary Evons 29th — 9th month by William Hibbins.

George Dobson was married to Mary Bostwicke¹ 24th — 9th month by John Glover.

John Gillet was married to Elizabeth Perry widow 22nd — 10th month by William Hibbins.

Robert Breck merchant was married to Sarah Hawkins the daughter of Mrs. Mary Hawkins widow 4th — 11th month by Richard Bellingham Dept Govr.

Samuel Bedwell was married to Mary Hodgkinson 2nd — 12th month by William Hibbins.

Richard Martine merchant was married to Sarah Tuttle daughter of John Tuttle of Boston 1st — 12th month by William Hibbins.

Theophilus Frery was married to Hannah Elliott daughter of Jacob Elliott of Boston deceased 4th — 4th month by William Hibbins.

John Lawrence was married to Elizabeth Adkinson 8th — 12th month by William Hibbins.

James Robinson was married to Martha Buck 21st — 12th month by William Hibbins.

Nathaniel Sowther was married to Sarah Hill widow 5th — 11th month.

Joseph Shaw was married to Mary Sowther daughter of Nath Sowther 1st — 10th mo.

FIRST CHURCH.

William of Edward Tinge	6 day	1 mo.
Deliverances ² son of Robert Scott	6 day	1 mo.
James of James Johnson	13 day	1 mo.
John of James Johnson	13 day	1 mo.
John of John Barrill	27 day	1 mo.
Benjamin of Alexander Baker	27 day	1 mo.
Tho: of James Pemerton	27 day	1 mo.
Mary of Samuel Sindall of Newberry	27 day	1 mo.
Samuel of Robert Reade of Exeter	3 day	2 mo.
Benjamin of Benjamin Phipenny	10 day	2 mo.
Abigail of Furnisey of Duxberry	10 day	2 mo.
John of John Chickley	24 day	2 mo.
John of George Mungy	24 day	2 mo.
Hezekiah of John Harrod	1 day	3 mo.
William of Innes	1 day	8 mo.
Mary of John Tutle's wife of Linn	8 day	3 mo.
William of Timothy Proute	29 day	3 mo.
Tho: of Robert and Rebecca Lord of the New Ch.	29 day	3 mo.
Martha of Philemon Purmit	19 day	4 mo.
James of Christian Alisson sister	19 day	4 mo.
Sarah of Tho: Savage	26 day	4 mo.
William of William Davis	26 day	4 mo.
John of Edward Cowell's wife	26 day	4 mo.
Edward of Edward Cowell's wife	26 day	4 mo.
Mary of Mary & John Tinker	3 day	5 mo.
Maria of Jonathan Negoose	10 day	5 mo.
John of John Inglsby	10 day	5 mo.
Anna of Sarah & Gamaliel Phippeny	31 day	5 mo.
James of Elizabeth & Francis Smyth	8 day	6 mo.
Mary of George Davis of the New Ch.	14 day	6 mo.

¹ This has been so read, but I am by no means sure that it is the true name. — W. S. A.

² Called Redemption on Town Records, one of the two names being evidently written from memory. — W. S. A.

Johanna of Henry Stevens	14 day 6 mo.
Eunice of Tho Roberts	21 day 6 mo.
Elizabeth of William Cowell's wife	21 day 6 mo.
Jeremiah of Rachel & Robert Woodward	28 day 6 mo.
Elizabeth of John Harisson	28 day 6 mo.
John of William Townsend	4 day 7 mo.
Elizabeth of Richard Woody of Roxberry	25 day 7 mo.
James of John Steevenson	2 day 8 mo.
Hannah of Edward Rawson of Newberry	10 day 8 mo.
Hannah of Benjamin Negoos	10 day 8 mo.
Joseph of Ann & Thos Bell	10 day 8 mo.
Samuel of Ann & Tho Saxton	10 day 8 mo.
John of Deane Winthorp's wife	24 day 8 mo.
Joseph of John Bodman's wife	24 day 8 mo.
Joseph of Tho Bomstead	31 day 8 mo.
Naomye of Francis Dowse	31 day 8 mo.
Nathaniel of William Padye of Plimouth	7 day 9 mo.
John of Richard Wayt	7 day 9 mo.
Eliza of Rich. Chrichly	13 day 9 mo.
Sarah of George Oris's wife	20 day 9 mo.
Sarah of Francis Hudson's wife	27 day 9 mo.
Nathaniel of Samuel Norden's wife	4 day 10 mo.
Nathaniel of Elizabeth Ridder of Waymouth	4 day 10 mo.
Abigail of Samson Shoore	11 day 10 mo.
Anna of Ezekiah Usher	1 day 11 mo.
Joseph of Daniel Turand's wife	1 day 11 mo.
Stephen of Anthony Stoddard	8 day 11 mo.
John of Simon Ayers	22 day 11 mo.
Elizabeth of Joseph Rocke	29 day 11 mo.
John of Strong Furnill	29 day 11 mo.
Ebenezer of Jacob Sheafe	5 day 12 mo.
Mary of John Sweete	5 day 12 mo.
Elnathan of Susan & George Allin	5 day 12 mo.
Katharine of Edward Hutchison	19 day 12 mo.
John of Mr Nanny of Hampton	19 day 12 mo.
Callib of Mr Parkis of Watertowne	26 day 12 mo.

1654.

TOWN.

Mary of Charles & Rebecca Pretious born 16th March.
 Elisha of William & Mary Salter born 7th March.
 Martha of William a Mariner & Martha Phillips born 10th March.
 Thomas of Thomas & Catherine Downes born 17th March.
 Henry of Henry & Elizabeth Powning born 28th April.
 Benjamin of Henry & Elizabeth Bridgham born 4th May.
 Thomas of William & Grace Rix born 11th April.
 Mary of Peter & Joan Garland born.
 Mary of John & Mary Mosse born 20th April.
 Henry of Henry & Eleanor Shrimpton born 26th April.
 Simon of Simon & Susan Rogers born 28th April.
 Aaron of John & Jane Huntley born 15th April.
 Sarah of Rice & Anne Jones born 19th April.
 Mary of Richard & Mary Hickes born Dec.
 Samuel of Lyonell & Eleanor Wheatley born 29th April.
 Elizabeth of Peter & Redigon Wittoms born 26th May.
 Anne of Matthew & Ann Ines born 6th June.
 Anne of William & Margaret Snelling born 7th May & baptized 17th May.
 Peter of Christopher & Rebecca Clarke born 14th June.
 Dorcas of William & Phillips White born 19th April.
 John of John & Mary Tappine born 31st May.
 Sarah of Edward & Sarah Ellis born 1st July.
 Catherine of David & Catherine Hitchborne born 2nd June.
 Rebecca of John & Rebecca Crumwell born 20th July.

William of John & Mary Barrell born 28th July.
Hannah of William & Hannah Shattock born 8th July.
William of William & Elline Furnell born 29th July.
Eliazar of Robert dec. & Elizabeth Scott born 18th July.
Peter of Samuel & Isabel Howard born 4th Aug.
Jabes of Thomas & Elizabeth Hunt born 11th June.
John of John & Judith Hull born 3rd Nov.
Sarah of Thomas & Frances Boyden born 12th Oct.
Hannah of John & Elizabeth Gillet born 12th Oct.
Mary of Robert & Sarah Waker born 1st Nov.
Elizabeth of John & Ann Sandie born 15th Oct.
Elizabeth of Andrew & Elizabeth Cload born 13th Sept.
John of Thomas & Leah Baker born 1st Oct.
Edmund of Edmund & Mary Jackson born 30th — 8th month
John of Mark & Mary Hands born 10th Sept.
Joseph of John & Mary Viall born 4th June.
Sarah of Edward & Jane Barker born 9th March.
Benjamin of Henry & Elizabeth Bridgham born 3rd May.
Patience of Ambrose & Ester Due born 1st Dec.
Rebecca of Edward & Rachel Rawson born 19th Oct.
Thomas of John & Abigail Leader born 19th Nov.
Nathaniel of Thomas & Mary Broughton born 5th Dec.
Hannah of Nicholas & Hannah Phillips born 25th Nov.
Susanna of Joseph & Mary Bastarr born 1st Sept.
Isaac of Walter & Mary Sennet born 22nd Sept.
Mary of Abraham & Jane Browne born 19th Dec.
Rebecca of Robert & Rebecca Winsor born 20th Dec.
Elizabeth of William & Anne Pollard born 13 Jan.
Abigail of Henry & Susanna Ambrose born 28th Dec.
Zechariah of Hezekiah & Elizabeth Vsher born 26th Dec.
Hannah of Samuel & Mary Gallop born 3rd Sept.
Sarah of James & Sarah Jemson born 2nd Jan.
William of Ambrose & Ann Dart born 1st Jan.
John of James & Sarah Balston born 3rd Dec.
William of William & Elizabeth Spowell born 18th Jan.
Elizabeth of Francis & Alice Bennet born 20th Dec.
Catharine of Amos & Mary Richardson born 6th Jan.
Gustavus of William & Mary Hambleton born 7th Augt.
James of Richard & Joanna Knight born 1st Feb.
Lydia of William & Mary Castine born 22nd Jan.
William of William & Anne Cotton born.
Benjamin of Benjamin & Wilmotte Phippeny born 19th Jan.
Elisha of Robert & Betteris Risdon born 25th Jan.
Mary of Peter & Mary Buttler born 21st Jan.
John of William & Martha Harvey born 5th Feb.
Joshua of Joshua & Anne Rogers born 20th Feb.
William of William & Ruth Read born 3rd Feb.
Priscilla of John & Elizabeth Clow born 28th Jan.
Rachel of Thomas & Elizabeth Pecke born 21st Jan.
Tabitha of John & Tabitha Blower born 12th Feb.
Dorothy of John & Jane Mavericke born 23rd Jan.
William of William & Mary Holloway born 11th Jan.
Nathaniel of William & Grace Toy born 23rd Feb.
Robert of Humphery & Sarah Cumby born 14th Feb.
Mary of David & Mary Faulkner born 10th Nov.
Anne of Thomas & Anne Waker born 27th Feb.
Josiah of Alexander & Elizabeth Baker born 26th Feb.
Elizabeth of Christopher & Anne Holland born 17th Feb.
William of Anthony & Alice Shaw born 24th Feb.
Asa of William & Sarah Halsey born 1st Jan.
Henry of Thomas & Elizabeth Edsell born 28th Feb.
Aaron of Thomas & Sarah Stevens born 28th Feb.
Samuel of Robert & Hannah Read born 28th Feb.
Thomas of Thomas & Sarah Yeo born 24th April.

Mehetabel of Thomas & Milcha Snow born 8th Feb.
 John of Matthew & Sarah Barnard born 29th Sept.
 Martha of John & Hannah Leeth born the last of Aug.
 John of James & Mary Hudson born 26th Jan.
 Benjamin of Francis & Joyce Burgesse born 11th Oct.
 Jabesh of Samuel & Mary ? Dunkin born 24th Feb.

Joanna of Christopher & Ann Holland died 2nd — 1st month.
 Joseph of Henry & Alice Largine died 14th — 1st mo.
 Peter of Samuel & Mary Johnson died 19th — 1st mo.
 Samuel of Robert & Hannah Read died 31st — 1st month.
 Judith wife of Robert Hull died 29th — 1st mo.
 John of James & Mary Dennis died 31st — 1st mo.
 Sarah of Hugh Browne died 3rd — 2nd mo.
 John of John & Susan Sweete died 3rd — 2nd mo.
 Joanna of Angel & Catharine Hollard died 29th — 1st month.
 William of Anthony & Alice Shaw died 25th — 1st month.
 Jane wife of John Anderson died 4th — 3rd mo.
 Ann wife of Thomas Trescott mariner died 10th — 3rd month.
 Thomas Wheeler died 16th — 3rd month.
 Samuel of Lyonell & Ellinor Wheatly died 20th — 3rd month.
 Tabitha of Thomas & Ann Bell died 27th — 2nd mo.
 Elizabeth of Peter & Redigon Wittoms died 25th — 3rd month.
 Joseph of Daniel & Lydia Turrill died 10th — 3rd month.
 Benjamin of Benjamin & Wilmot Phipeny died 28th — 3rd month.
 Hannah the daughter Ireson of Lynn servant to Sibbella Sands widow deceased 5th — 9th month.
 Martha a neger daughter of Matthew & Dorcas died 26th — 6th month.
 William of Matthew & Ann Jyons died 1st — 9th month.
 Mary of John & Hannah Bateman died 17 — 8th month.
 Elizabeth Looe died 24th — 8th month.
 John of Robert & Elizabeth Sanford died 23rd — 9th month.
 Matthew Cenig died 4th — 10th month.
 John of John & Judith Hull died 14th — 9th month.
 Major General Edward Gibbons died 9th — 10th month.
 Thomas of Thomas & Elizabeth Sowell died 7th — 10th month.
 Isaac of Walter & Mary Sennot died 11th — 8th mo.
 Thomas Dinely died 15th — 11th month.
 Joshua of Joshua & Ann Rogers died 15th — 12 mo.
 Mary Bigsby widow died 5th — 11th month.
 Barnebas Farre died 13th — 10th month.
 Hannah of Thomas & Elizabeth Sowell died 2nd — 11th month.
 John of John & Joan Baker died 25th — 4th mo.
 Sarah of John & Mary Philips Jr. died 29th — 4th month.
 Hezekiah of John & Elizabeth Harwood died 25th — 4th month.
 Zechariah of Zechariah & Elizabeth Phillips died 24th — 5th month.
 Thomas of Robert & Rebecca Winsor died 8th — 5th month.
 Samuel of John Anderson died 10th — 5th mo.
 Phillipee wife of William White died 5th — 5th month.
 Samuel Norton died 28th of June 1654.
 James of Arthur & Jane Kind died 19th — 5th mo.
 Sarah of Joseph & Elizabeth Rocke died 27th — 4th mo.
 Hannah of Hezekiah & Elizabeth Vsher died 24th — 5th month.
 Mary of Samuel & Joanna Sendall died 23rd — 5th month.
 Anna of Matthew & Ann Jyons died 26th — 5th month.
 Mr. William Hibbins died 23rd — 5th month.
 Elizabeth of Peter & Alice Place died 8th — 6th mo.
 Elizabeth of Edward & Margaret Cowell died 7th — 6th month.
 John of William & Hannah Townesend died 17th — 6th mo.
 Ann of John & Bridget Sanford died 26th — 6th month.
 Mary of Samuel & Jane Wilson of Fairefeild died
 Eliazer of Robert & Elizabeth Scott died 3rd — 6th mo.
 Grace of Richard Bellingham died 3rd — 7th mo.
 Thomas of Thomas & Mary Broughton died 1st — 7th month.

John of Robert & Catherine Nanny died 20th — 7th month.
 Eliakim of Robert & Sarah Waker died 30th — 7th mo.
 John Avery died 31st — 5th month.
 Naomi of Francis & Catharine Douce died 14th — 7th month.
 Lydia of Francis & Catharine Douce died 6th — 8th month.
 Mary of Henry & Sibilla Sands died 14th — 8th mo.
 Gustavus of William & Mary Hambleton died 27th — 11th month.
 John of James & Mary Hudson died the first week in February.

William Read & Ruth Crooke were married 20th — 1st month by William Hibbins.
 John Farnum & Susanna Arnold daughter of Thomas Arnold of Watertown were married 7th — 2nd month by Increase Nowell.
 Richard Wilson & Sarah Hurst were married 7th — 2nd month by Richard Bellingham.
 Joseph Gridley & Lydia Flood widow were married 9th June.
 John Tappin & Mary Woodmansey daughter of Mr. Woodmansey of Boston were married 20th — 6th month.
 Angolla a neger servant of Capt. Robert Keayne was married to Elizabeth a neger servant of Edward Hutchinson 20th — 2nd mo by William Hibbins.
 John Richards & Elizabeth Winthrop widow were married 3rd — 3rd month by William Hibbins.
 Robert Hubberd & Margaret Allen were married 2nd — 4th month by William Hibbins.
 John Conney & Elizabeth Nash daughter of Robert Nash of Boston were married 20th — 4th month by Richard Bellingham Dep. G.
 Capt. Robert Fen & Mrs. Mary Hawkins widow were married 26th — 4th month by William Hibbins.
 Thomas Harwood & Rachel Woodward widow were married 7th — 5th month by William Hibbins.
 Simon Roberts & Christian Baker daughter of Alexander Baker were married 18th — 5th month by Richard Bellingham.
 John Peirce of Dorchester & Rebecca Wheeler of Boston widow were married 10th — 6th month by Capt. Humphrey Atherton.
 Richard Smith of Lancaster & Joanna Quarlls were married 2nd — 6th month by Richard Bellingham Govr.
 Ezekiel Hamlen & Elizabeth Drake were married 8th — 6th month by Richard Bellingham Gov.
 John Blake & Mary Shaw widow were married 16th — 6th month.
 Richard Peacocke & Margery Shove widow were married 17th — 6th mo. by Richard Bellingham Gov.
 John Hawkins & Sarah Damarill widow were married 15th September by Richard Bellingham Governor.
 Samuel Bucknell & Sarah Bishop daughter of Nath Bishopp of Boston were married 18th — 7th month by Richard Bellingham Gov.
 James Tounge & Elizabeth Hagborne daughter of Abraham Hagborne of Boston were married 8th — 7th month by Capt. Humphery Atharton.
 Edward Bobbet & Sarah Tarne, daughter of Myles Tarne of Boston were married 7th — 7th month by Capt. Humphery Atharton.
 Isaac Bollard & Sarah Jones daughter of Thomas Jones of Dorchester were married 3rd — 11th month by Mr. Glover.
 Robert Higgins & Susanna Westoe were married 2nd — 9th month by Richard Bellingham Govr.
 Matthew Coy & Elizabeth Roberts were married 29th — 6th month by Capt. Humphery Atharton.
 Jonathan Danforth & Elizabeth Powter the daughter of Good. Powter deceased of Billerky were married 22nd — 9th month.
 John Aylett & Mary Hawkins daughter of Capt. Thomas Hawkins deceased were married 21st — 9th month by Capt. Humphery Atherton.
 Thomas Jones & Lydia Sanderson daughter of Robert Sanderson of Boston were married 13th — 10th month by Richard Bellingham Gov.
 John Willis & Hannah Elsse were married 11th — 11th month by Capt. Humph Atharton.

Jacob Elliott & Mary Wilcock widow were married 9th — 11th month by Capt. Humphery Atharton.

William Hambleton & Mary Richardson were married 7th — 6th month by Richard Bellingham Governor.

William Therrell & Rebecca Simpkins daughter of Capt. Nicholas Simpkins were married 29th — 11th month by Richard Bellingham Governor.

FIRST CHURCH.

Berekiah of Edward Arnoll's wife	6 day	1 mo.
Sarah of Jeremiah Howchin	12 day	1 mo.
Elisha of William Salter	12 day	1 mo.
John of Robert Samford.	19 day	1 mo.
Tho: of William Ricker	16 day	2 mo.
William & } of Martha & William Harve	23 day	2 mo.
Tho: }		
Mary & } of Tomeson & John Scarlet	23 day	2 mo.
Jaiene }		
Mary of John Moos	23 day	2 mo.
Henry of Henry Powning	30 day	2 mo.
Simond of Simond Rogers	30 day	2 mo.
John & } of Jain & John Mavericke	30 day	2 mo.
Jain }		
Benjamin of Henry Bridgham	7 day	3 mo.
Joseph of John Viall	21 day	3 mo.
Matthew } of Ann & Tho: Joanes	4 day	4 mo.
Sarah }		
Mehetable of Edindin of Ch. of Situat	4 day	4 mo.
Peter of Christopher Clarke's wife	11 day	4 mo.
Ann of Matthew Jones	11 day	4 mo.
Sarah of Sarah Elice	2 day	5 mo.
Eliezer of Robert Scott	23 day	5 mo.
Wm. of John Barrill	30 day	5 mo.
Grace of Rich: Bellingham	13 day	6 mo.
Sarah of John Leverit	20 day	6 mo.
Richard of Capt: Savage	27 day	6 mo.
John of Ann & John Anger	27 day	6 mo.
Sarah of Wm. Davis	3 day	7 mo.
Henry of Sara & Henry Messinger	3 day	7 mo.
John of Mary & Mark Haines	10 day	7 mo.
Isaac of Walter Sennet's wife	1 day	8 mo.
Edward of Edward Rainsford	15 day	8 mo.
Stephen of Isaac Waker	15 day	8 mo.
Sarah of John Gillit's wife	15 day	8 mo.
Ann of Edward Boyden of Ch. of Watertowne	15 day	8 mo.
Thomas of Theodor Atkinson	22 day	8 mo.
Rebecca of Edward Rawson of Ch. of Newberry	29 day	8 mo.
Ann of John Saunders of Ch. of Watertowne	29 day	8 mo.
John of John Hull	5 day	9 mo.
Edmund of Edmond Jackson	5 day	9 mo.
Mary of Robert Waker	5 day	9 mo.
Zacharia of Hezekia Usher	31 day	10 mo.
Rebecca of Rebecca & Thomas Windsor	31 day	10 mo.
Sarah of James Jemson	7 day	11 mo.
Elizabeth of Joan & Tho: Joy	7 day	11 mo.
Kathrine of Ann & Amos Richison	14 day	11 mo.
Abigail of Mrs. Costone of Ch. of Linn	28 day	11 mo.
Benjamin of Mrs. Phipeny of the New Ch.	28 day	11 mo.
Dorothy of Jaen & John Mavericke	28 day	11 mo.
Wm. of Wm. Cotton	4 day	12 mo.
Wm. of Wm. Read	11 day	12 mo.
Mehetabel of Tho: Snowe	11 day	12 mo.
John of sister Harvey	11 day	12 mo.
Peter of Wm. Toy	25 day	12 mo.

1655.

TOWN.

James of Thomas & Mary Robinson born 14th March.
 Eunice of Edward & Mary Ting born 8th March.
 William of John & Hannah Bateman born 8th March.
 Hannah of Thomas & Elizabeth Rider born 7th March.
 Lydia of Francis & Catherine Dowse born 10th March.
 William of William & Susanna Dawes born 8th March.
 Hannah of John & Elizabeth Harwood born 6th March.
 Samuel of John & Mary Hurd born 14th March.
 Hannah of Matthew & Rebecca Barnes born 14th March.
 Rebecca of Joseph & Elizabeth Rocke born 16th March.
 Mary of Joseph & Lydia Gridley born 22nd March.
 Nathaniel of Thomas & Elizabeth Wyborne born 12th March.
 Sarah of John & Jane Bushnell born 24th March.
 Mary of William & Elizabeth Browne born 16th March.
 Peter of Peter & Sarah Olliver born 3rd March.
 Joseph of Daniel & Lydia Turell born 25th March.
 Mary of Robert merchant & Sarah Brecke born 19th April.
 Elizabeth of Capt. James & Abigail Johnson born 12th April.
 Silvanus of Walter & Mary Merry born 8th April.
 Sarah of Thomas & Sarah Moore born 26th Apr.
 John of Simon & Christian Roberts born 27th April.
 Samuel of John & Joan Baker born 16th Apr.
 Robert of John & Mary Dawes born 29th March.
 Deliverance of Richard & Anna Bradley born 3rd April.
 Sarah of Samuel & Sarah Bucknell born 17th May.
 John of Edmund & Ann Grosse born 21st April.
 Catharine of Matthias & Ann Jions born 1st June.
 Mary of Nathaniel & Mary Adams born 20th May.
 Mary of William & Siscilla Talbott born 21st June.
 Prudence of Jonathan & Mary Balston born 28th May.
 Rachel of Thomas & Rachel Harwood born 20th June.
 Nathaniel of Elias & Bridget Parkman born 24th June.
 William of Edward & Margaret Cowell born 28th June.
 Ann of Sargt Richard & Frances Woodee born 12th July.
 Joseph of James & Sarah Pemberton born 2nd July.
 Thomas of Matthew & Mary Grosse born 5th July.
 Mary of Richard & Sarah Martine born 7th June.
 Benjamin of Timothy & Margaret Prout born 16th July.
 ——— of Mr. Jacob & Margaret Sheafe born 25th July.
 Ephraim of Capt. John & Ann Manning born 10th Aug.
 Sarah of Jeremiah & Sarah Merrills born 14th Aug.
 Joanna of William & Mary Davis born 16th Aug.
 Mary of Henry & Mary Willis born 26th July.
 Thomas of Thomas & Anne Dure born 26th Aug.
 Sarah of John & Elizabeth Purchase born 10th Aug.
 Martha of Edward & Margaret Coleman born 8th Aug.
 Nathaniel of Nathaniel & Damaris Robinson born 29th Aug.
 John of John & Susanna Farnum born 20th May.
 Elizabeth of David & Mary Evans born 10th Aug.
 John of John & Hannah Lowell born 26th Aug.
 John of James & Mary Dennis born 4th Aug.
 Martha of John & Martha Shaw born 16th Sept.
 William of William & Hannah Ballantine born 22nd Sept.
 Simon of Simon & Hannah Lynde born 26th Sept.
 Samuel of Thomas & Anna Rawlins born 1st Sept.
 William of William & Mary Baker born 19th Oct.
 Elizabeth of Robert & Elizabeth Sanford born 5th Dec.
 Mary of Edward & Martha Arnold born 16th Sept.
 John of John & Ruth Ingolsby born 2nd Oct.
 John of John & Sarah Tuckerman born 8th Oct.

Mary of Mr. John & Mary Aylet born 8th Oct.
 Mary of Jacob & Mary Eliott born 6th Oct.
 Joseph of Hope & Rachel Allen born 4th Oct.
 James of Arthur & Jane Kinde born 29th Oct.
 William of William & Sarah King born 6th Nov.
 Martha of Mr. Peter & Mary Duncan born 10th Nov.
 Sarah of Richard & Joyce Staines born 16th Nov.
 George of George & Hannah Munning born 24th Nov.
 Hannah of Jacob & Anne Leger born 14th Nov.
 Mary of William & Mary Hincksman born 20th Dec.
 Rebecca of William & Rebecca Turell born 26th Dec.
 Mary of Edmund & Rebecca Madock born 4th Jan.
 Samuel of John & Sarah Miriam born 14th Dec.
 John of John & Susanna Higgins born 15th Feb.
 John of James & Lydia Burgesse born 21st Feb.
 Martha of John & Martha Amey born 10th Nov.
 Joseph of Robert & Mary Wright born 14th Nov.
 Joshua of Thomas & Sarah Scottow born 23rd Dec.
 Sarah of Joseph & Frances Howe born 28th Feb.
 John of Mr. Jeremiah & Ester Houchine born 27th Oct.
 Martha of John & Mary Gilbert born 8th Dec.
 Elizabeth of William & Mary Hambleton born 13th Dec.
 Thomas of Samuel & Mary Dunkin born 15th Jan.
 Hopestill dau. of Nicholas & Hannah Stone born 7th Jan.
 Joseph of James & Dorothy Wiseman born 24th Dec.
 Josiah of Josiah & Ranis Belchere born 23rd Dec.
 Mary of John & Elizabeth Wilkey born 17th Dec.
 Joanna of John & Mary Anderson born 25th Dec.
 Jaleham of Mr. William & Martha Brenton born 15th Nov.
 Mary of John & Sarah Jeffes born 8th Jan.
 John of John & Elizabeth Conney born 5th Jan.
 Marah of Edward & Susanna Jackline born 15th June.
 Jane of Lyonell & Elinor Wheatley born 28th May.
 Mary of Capt. John & Sarah Leveret born 12th Feb.
 Elizabeth of John & Elizabeth Lawrence born 9th May.
 Sarah of John & Sarah Stephenson born 6th Feb.
 Ezekiel of Ezekiel & Elizabeth Hamline born 2nd Nov.
 Edmund of Clement & Mary Gross born 9th March.
 John of Nathaniel & Sarah Hunn born 16th Jan.
 Hannah of Mr. William & Mary Paddy born 8th Jan.
 Martha of Henry & Elizabeth Blake born 2nd Nov.
 Margaret of Ezekiel & Ann Woodward born 24th Feb.
 Daniel of Robert & Margaret Hubberd born 9th May.
 Mary of Richard & Jane Critchly born 18th Jan.
 Joshua of Thomas & Sarah Scottow born 23rd Dec.
 John of John & Ann Chamberline born 1st May.
 John of Mr. Robert & Catharine Nanny born 12th Aug.

Barbary wife of Mr. Anthony Stoddard died 15th — 2nd month.
 Edmund Grosse died 1st — 3rd month.
 Anne of Thomas & Anne Waker died 20th — 2nd month.
 Susanna wife of Lieut. William Phillips died 16th — 4th month.
 Sylvanus of Walter & Mary Mery died 16th — 4th.
 Thomas Bell died 7th — 4th month.
 Nathaniel Sowther died 27th — 4th month.
 Mr. Robert Knight died 27th — 4th month.
 Samuel of John & Joan Baker died 2nd — 5th month.
 Hannah wife of Robert Read died 24th — 4th mo.
 Robert of Robert & Margery Brooke died 11th — 5th month.
 Margaret wife of Henry Felch died 23rd — 4th mo.
 Ester Cogsall decease at Godfry Armitages house 7th — 4th month.
 John Speres master of the Barque May Flower an inhabitant of Virginia deceased at Evan Thomas his house 25th — 5th month.
 Zakeus Bosworth deceased 28th — 5th month.

John Coddington deceased 18th — 6th month.
 Thomas Bounty of Wappine or Redriffe in England deceased at Lieut. William Hudsons 26th — 6th month he died intestate.
 John Foote a seaman of Manchester died 16th — 6th month.
 John of James & Mary Dennis died 10th — 7th mo.
 Benjamin of Benjamin & Wilmot Phipeny died 20th — 7th month.
 William Davis a seaman living in Chadwell in England deceased at Isaac Cullimors house 20th — 7th month.
 Richard of Capt. Thomas & Mary Savage died 23rd — 7th month.
 Rebecca of Mr. Joseph & Elizabeth Rocke died 19th — 7th month.
 Dorcas of William & Philip White died 30th — 7th month.
 Chrestable wife of John Gallop died 27th — 7th month.
 Elisha of William & Mary Salter died 14th — 7th month.
 William of William & Hannah Balantine died 4th — 8th month.
 Margaret Mathewes deceased 23rd — 9th month.
 Mary of Arthur & Jane Kind died 27th — 8th mo.
 John of John & Ruth Ingolsby died 15th — 10th mo.
 Mary wife of Lieut. Joshua Hewes died 23rd — 6th month.
 John Clemons seaman at a town near Lec in England deceased at Isaac Cullimors 13th — 8th month.
 Elizabeth of Andrew & Elizabeth Cload died 17th — 7th month.
 George Stevens a cooper in London died at Isaac Cullimors house 2nd — 9th month.
 Mary wife of Ralph Roote died 15th — 9th mo.
 Mary wife of William Baker died 12th — 10th mo.
 Lydia of Jonathan & Mary Balston died 6th — 11th month.
 Judith of William & Scisly Talbot died 16th 11th mo.
 Francis Bennet was drowned at Nodles Island dyed 4th — 10th month.
 Em wife of Thomas Rawlins died 27th — 10th mo.
 Mary of John & Hannah Keetch died 1st — 11th month.
 Philip Sherman apprentice of John Blower died 12th — 10th month.
 Elizabeth Rose servant to Hugh Williams died 20th — 11th month.
 Simon of Mr. Simon & Hannah Lynd died 4th — 11th month.
 Mary wife of Mr. Thomas Purchase died 7th — 11th mo.
 Alice Fermase widow died 9th — 12th month.
 Mary of Moses Maverick of Mablehead died 24th — 12th month.

Josias Belcher & Ranus Ransford were married 3rd — 1st month by Capt. Humphery Atharton.
 George Manning & Hannah Blanchard widow were married 13 — 1st month by Richard Bellingham Governor.
 Clement Corbet & Dorcas Buckmaster daughter of Thomas Buckmaster of Muddy River were married 7th — 1st month by Capt. Humphery Atharton.
 John Merick & Elizabeth Wyborne daughter of Thomas Weyborne of Boston were married 3rd — 2nd month by Capt Humphery Atharton at Cambridge.
 William Browne & Elizabeth Ruggles daughter of George Ruggles of Brantrey were married 24th — 2nd month.
 John Griffine & Susanna Price were married 27th — 2nd month by Capt. Humphery Atharton.
 John Browne & Ester Makepeace daughter of Thomas Makepeace of Boston were married 24th — 2nd month by Capt. Humphery Atharton.
 Zachariah Buckmaster & Sarah Webb were married 7th — 1st month by Capt. Humphery Atharton.
 Arthur Mason & Joanna Parker daughter of Nicholas Parker of Boston were married 5th — 5th month by Increase Nowell.
 Richard Bennet & Margaret Gurgefield widow were married 11th — 5th month by Richard Bellingham Dep. Governor.
 Abiel Everill & Elizabeth Phillips daughter of Lieut. Will. Phillips of Boston were married 6th — 5th month by Capt. Humphery Atharton.
 Mr. Samuel Lee of Virginia & Elizabeth Bowland of Boston were married 2nd — 6th month by Capt. Humphery Atharton.
 Samuel Sprague & Recuba Crawford were married 23rd — 6th month by Richard Bellingham Dept. Govr.

Joseph Waters & Martha Mellowes were married 13th — 7th month by Capt. Humphery Atharton.
 Edward Morris & Grace Bett were married 20th — 9th month by Richard Bellingham Dept. Govr.
 Mr. William Thompson & Catharine Treat daughter of Richard Treat of Wethersfield were married 19th — 9th month by John Endecott Governor.
 Mr. Jeremiah Eggington & Elizabeth Cotton daughter of the late John Cotton deceased were married 12th — 8th month by Capt. Robert Bridges.
 Emanuel Springfield & Mary Mellowes were married 13 — 7th month by Capt. Humphery Atharton.
 Richard George & Mary Pell daughter of William Pell of Boston were married 1st — 9th mo. by Capt. Humphery Atharton.
 Robert Twelves & Martha Bracket daughter of Peter Bracket of Brantrey were married 22nd — 9th month by Richard Bellingham Dept. Govr.
 John Palsgrave & Mary Mavericke daughter of Samuel Mavericke of Nodles Island were married 8th — 12th month by John Endecott Govr.
 Wm Pitts & Susan Aealy late widow of Philip Aealy were married 7th — 10th month by John Endicott Govr.
 Edward Belcher & Mary Wormwood daughter-in-law to Edward Belcher Senior were married 8th — 11th month by Major Humphery Atharton.
 John Brimblecombe & Barbara Davis the late widow of George Davis were married 14th — 11th mo. by Richard Bellingham Dept. Govr.
 Abram Fort & Hannah Hutchinson widow were married 18th — 11th month by John Endecott Govr.
 Oliver Callowe & Judith Clocke widow were married last of February by John Endicott Govr.
 Matthew Clark & Abigail Maverick daughter of Elias Maverick of Winnesimett were married 4th — 4th month.
 John Hanniford & Abigail Dill widow were married 8th — 9th month by Capt. Wiggins.

FIRST CHURCH.

Peter of Peter Oliver	4 day	1 mo.
Josiah of Alexander Baker	4 day	1 mo.
Asaph of Wm. Harsey	4 day	1 mo.
Eunice of Edward Ting	11 day	1 mo.
Anna of John Harrod	11 day	1 mo.
Wm. of Wm. Dawes	11 day	1 mo.
Lydia of Francis Douce	11 day	1 mo.
Wm. of John Bateman's wife	11 day	1 mo.
James of & Mary Robinson	18 day	1 mo.
Rebecca of Joseph Rocke	18 day	1 mo.
Jacob of Ann & John Hurd	18 day	1 mo.
Eliashib of John Harisson	18 day	1 mo.
Anna of John Barnes of Ch. of Braintree	18 day	1 mo.
Joseph of Daniel Turant's wife	1 day	2 mo.
Deliverance of Rich: Bradley's wife	8 day	2 mo.
James of James Johnson	15 day	2 mo.
Sylvanus of Walter Merry	15 day	2 mo.
Mary of Mr. Brecke of Ch. of Dorchester	22 day	2 mo.
Anna of Mr. Anger's wife	29 day	2 mo.
John of Edmond Groose	29 day	2 mo.
Tho: of Tho: Yoo's wife of the New Ch.	29 day	2 mo.
David of Tho: Duer	6 day	3 mo.
John of Tho: Duer	6 day	3 mo.
Sampson of Tho: Duer	6 day	3 mo.
Tho: of Thomas & Martha Stocker of Ch. of Linn	6 day	3 mo.
Elizabeth of Thomas & Martha Stocker of Ch. of Linn	6 day	3 mo.
John of Alice Nichols	13 day	3 mo.
Rachel of Rachel & Thomas Harrod	24 day	4 mo.
Wm. of Edward Cowell's wife	8 day	5 mo.
Nathaniel of Elias Partman	8 day	5 mo.
Ann of Rich. Woody of Ch. of Roxberry	15 day	5 mo.
Benjamin of Timothy Proute	22 day	5 mo.

Marcy of Jacob Sheaffe	29 day 5 mo.
Joseph of James Pemerton	29 day 5 mo.
Mary of Thorne	29 day 5 mo.
John of Mary & John Dinis	5 day 6 mo.
Ephraim of Ann & John Manning	12 day 6 mo.
John	12 day 6 mo.
Elizabeth } of sister Pecke	12 day 6 mo.
Rachel }	12 day 6 mo.
John	12 day 6 mo.
Joseph	12 day 6 mo.
Samuel } of Sarah & John Marshall	12 day 6 mo.
Sarah }	12 day 6 mo.
Hannah }	12 day 6 mo.
Elizabeth of William Davis	26 day 6 mo.
Thomas of Thomas Duer	2 day 7 mo.
Mary of William Arnoll's wife	16 day 7 mo.
John of John Lowell	16 day 7 mo.
John of John Tinker	30 day 7 mo.
William of John Inglsby	7 day 8 mo.
Mary of Jacob Eliot	14 day 8 mo.
Martha of Henry Blauge	28 day 8 mo.
George of Hannah & George Manning	25 day 9 mo.
Anna of Wm Leauger	25 day 9 mo.
John of Jeremiah Houchin	2 day 10 mo.
Elizabeth of Robert Samford	9 day 10 mo.
Josua of Tho: Scotto	9 day 10 mo.
Samuel of John Meriam	9 day 10 mo.

1656.

TOWN.

Sarah of James & Mary Hawkins born 18th Mar.
 Ambrose of Ambrose & Mary Bennet born 21st Mar.
 Isaac of William & Ruth Read born 18th Apr.
 William of William & Elizabeth Greenoe born 12th April.
 George of George & Mary Munjoy born 21st April.
 Benjamin of Sargt Thomas & Elizabeth Clarke born 4th May.
 Abigail of John & Susanna Sweet born 4th May.
 Lydia of John & Sarah Badman born 26th April.
 Samuel of Alexander & Mary Adams born 7th May.
 Thomas of John & Sarah Marshall born 11th May.
 Mary of William & Mary Lane born 15th May.
 Rebecca of Mr. Edward & Rachel Rawson born 21st May.
 Sarah of John & Mary Milam born 6th April.
 Joseph of Thomas & Ann Sexton born 9th May.
 Hannah of Henry & Elizabeth Powning born 8th April.
 James of Abiel & Elizabeth Everill born 4th Apr.
 John of John & Bridget Willford born 26th May.
 William of Capt. Richard & Elizabeth Davenport born 11th May
 Benjamin of Mr. Edward & Abigail Hutchinson born 2nd June.
 Jeremiah of Thomas & Rachel Harwood born 4th June.
 John of Robert & Margaret Hubberd born 18th May.
 Nathaniel of John & Joan Baker born 4th April.
 John of Thomas & Elizabeth Hunt born 11th April.
 Sarah of Nathaniel & Christian Fryer born 20th July.
 Walter of Walter & Mary Merry born 3rd June.
 Benjamin of Samuel & Joanna Norden born 15th June.
 Samuel of Thomas & Ann Waker born 26th June,
 Elizabeth of Anthony & Alice Shaw born 21st May.
 Mary of Ensigne Joshua & Lydia Scottow born 11th May.
 John of Robert & Mary Feild born 9th June.
 Anthony of Anthony & Christian Stoddard born 16th June.
 Benjamin of William & Mary Holloway born 8th July.

Benjamin of Benjamin & Wilmott Phipeny born 15th July.
 John of Rober & Sarah Waker born 14th July.
 Rebecca of Francis & Mary East born 22nd July.
 John of John & Elizabeth Purchase born 3rd Aug.
 Stephen of Isaac & Susanna Waker born 13th Aug.
 Mary of James & Mary Hudson born 27th July.
 John of Robert & Catharine Nanney born 12th Aug.
 Sarah of John & Abigail Haniford born 8th Aug.
 Anne of Arthur & Joanna Mason born 10th Aug.
 Elizabeth of Jeremiah & Elizabeth Eggington born 15th Aug.
 Joseph of Thomas & Naomi Wells born 7th June.
 Mary of Richard & Mary George born 22nd Aug.
 Matthew of Matthew & Elizabeth Coy born 5th Sept.
 David of William & Hannah Ballentine born 24th Aug.
 Sarah of Isaac & Elizabeth Coussins born 31st Aug.
 Thomas of David & Mary Faulkner born 26th Sept.
 Samuel of Richard & Frances Woodee born 11th Sept.
 Lydia of Jonathan & Mary Balston born 9th Oct.
 Mary of John & Anne Sandy born 24th Oct.
 Abigail of John & Mary Viall born 21st Oct.
 Hannah of Samuel & Mary Flacke born 26th Oct.
 John of Joseph & Elizabeth Rocke born 2nd Nov.
 Elizabeth of John & Anne Chamberline born 25th Oct.
 Martha of Thomas & Martha Fitch born 9th Nov.
 Samuel of Capt. Thomas & Mary Savage born 16th Nov.
 Samuel of John & Susanna Cole born 24th March.
 Mary of Andrew & Elizabeth Cload born 22nd July.
 William of Samuel & Sarah Davis born 4th Sept.
 Elizabeth of John & Susanna Griffine born 26th Aug.
 John of Lieut William & Bridget Phillips born 18th Sept.
 Jeremiah of Samuel & Ester Travis born 9th Sept.
 Henry of Henry & Mary Stephens born 20th July.
 Lydia & Priscilla twins of Henry & Sarah Messinger born 22nd Nov.
 Exercise dau. of William & Hannah Shattocke born 12th Nov.
 Jonathan of Henry & Eleanor Shrimpton born 18th Nov.
 Sarah of Richard & Joanna Knight born 6th Nov.
 Edward of Edward & Sarah Ellis born 26th Nov.
 John of John & Hannah Andrewes born 21st Nov.
 Mary of Capt. William & Huldah Davis born 3rd Dec.
 Joseph of Thomas & Elizabeth Peck born 11th Dec.
 Peter of Peter & Reddigan Wittoms born 15th May.
 Mary of Edmund & Elizabeth Browne born 15th Dec.
 Ebenezer of John & Ruth Ingolsby born 13th Dec.
 Mary of William & Esther Peirce born 10th Dec.
 Henry of Henry & Mary Phillips born 1st Oct.
 Jonathan of William & Friswith Osborne born 16th Nov.
 Henry of Henry & Ruth Keskeyes born 3rd May.
 Elizabeth of John & Martha Mellowes born 15th Dec.
 Ezekiel of William & Grace Rex born 30th Nov.
 John of John & Elizabeth Gill born 11th Jan.
 Samuel of George & Deborah Burrell born 10th Jan.
 Richard of Richard & Mary Hicks born 20th Jan.
 Elizabeth of Thomas & Mary Read born 28th Jan.
 Sarah of William & Elizabeth Browne born 8th Jan.
 Elizabeth of Edmund & Mary Jackson born 11th Feb.
 William of William & Elizabeth Sumner born 9th Feb.
 William of William & Mary Ingram born 9th Feb.
 Rebecca of Besse the negro servant of Thomas Lake born 1st Feb.
 Thomas of Mr. Thomas and Mary Lake born 9th Feb.
 Thomas of Mr. Thomas & Mary Broughton born 23rd Dec.
 John of John & Mary Barrell born
 Jonathan of George & Elizabeth Oris born
 Nicholas of Nicholas & Hannah Phillips born 26th Feb.
 Rebecca of Gamaliel & Sarah Phipeny born 12th Feb.

Samuel of Samuel & Mary Gallop born 14th Feb.
 Hannah of Francis & Joan Crocum born 15th Feb.
 Ebenezer of Timothy & Mary Prout born 14th March.
 Mehetabel of Thomas & Rebecca Hawkins born 27th Jan.
 Joseph of William & Helen Furnell born 19th Jan.
 Satisfaction son of Edward & Mary Belcher born 23rd Feb.
 James of Edward & Margaret Coleman born 31st Jan.
 Elizabeth of Peter & Mary Duncan born 28th Feb.
 Mary of John & Dorothy Downes born 4th March.
 Thomas of Tho: & Dorothy Bligh born 18th Oct.
 Sarah of Edward & Elizabeth Page born 13th April.
 Elizabeth of Nathaniel & Damaris Robinson born 24th Feb.
 Abigail of Matthew & Abigail Clarke of Winisemet born 17th June.
 Simon of Simon & Christian Roberts born 22nd Nov.

Judith Whittingham daughter-in-law unto Mr. Simon Eire died 27th — 1st mo.
 Abigail son of John & Susanna Sweete died 16th — 3rd month.
 Mary wife of William Lane died 2nd — 3rd mo.
 Hannah of Mr. Edward & Rebecca Rawson died 27th — 3rd month.
 Matthew of Matthew & Ann Jions died 13th — 3rd month.
 Jarvis Goold died 27th — 3rd month.
 Gershom of John & Elizabeth Mathew died —
 John of John & Bridget Wilford died 12th — 4th month.
 Thomas Johnson of Hingham drowned 29th — 3rd month.
 Stephen of Isaac & Sarah Waker died 29th — 4th month.
 Joanna wife of Samuel Norden died 29th — 4th mo.
 Nathaniel of John & Joan Baker died 13th — 4th month.
 John of Thomas & Elizabeth Hunt died 19th — 6th month.
 Philip of Benjamin & Sarah Brisco died 16th — 6th month.
 Sarah of Thomas & Sarah Moore died 25th — 6th month.
 Susanna of Philip & Rachel Phillips died 15th — 6 month.
 John Jellet died 13th — 6th month.
 Zechariah of Mr. Hezekiah & Elizabeth Vsher died 23rd — 6th month.
 Sarah of Francis & Catharine Dawse died 18th — 5th month.
 Elizabeth of Clement & Mary Grosse died 1st — 7th month.
 Sarah of Samuel & Sarah Bucknell died 25th — 6th month.
 Elizabeth wife of Jeremiah Eggington died 31st — 6th month.
 Ester wife of Jeremiah Fitch died 14th — 7th month.
 John Jarvis merchant died 24th — 7th month.
 Rachel of Thomas & Rachel Harwood died 27th — 7th month.
 Thomas Wiborne died 2nd — 8th month.
 Samuel Wilbore died 29th — 7th month.
 Mrs. Ann Leverit died 16th — 8th month.
 Sarah of John & Emm Coddington died 8th — 9th month.
 Jeremiah of Daniel & Ester Travis died 1st — 9th month.
 Hannah of William Read died 25th — 9th month.
 Mary wife of Samuel Flacke died 6th — 9th month.
 Anne wife of John Kenricke of Muddy River died 15th — 9th month.
 Elizabeth wife of Isaac Coussnes died 14th — 10th month.
 Dinah wife of Dorman Mahoon died 8th — 11th mo.
 William of William & Mary Ingram died 19th — 11th month.
 Capt. Robert Keayne died 23rd — 1st mo.
 Thomas Buckminster died 28 September.

William Baker & Pilgrim Edye daughter of John Edye of Watertown were married 22nd — 2nd month by William Browne.
 Isaac Woody & Dorcas Harper were married 20th — 1st month by Major Humph. Atharton.
 Thomas Rawlins & Sarah Madocks of Roxbury a widow were married 2nd — 3rd month.
 John Jephson & Emm Coddington widow were married 7th — 3rd mo. by Major Humph. Atharton.
 William Mullings & Ann Bell widow were married 7th — 3rd mo. by Richard Bellingham Dept. Govr.

- Joseph Moore & Ruth Starr were married 21st — 3rd month by John Endicott Govr.
- William Browne & William Parchmt were married 11th — 2nd month by Richard Bellingham Dept. Govr.
- John Peirce & Ruth Bishop daughter of Nath Bishop of Boston were married 15th — 2nd month by John Endicott Govr.
- Thomas Thorp & Rebecca Miluard were married 27th — 3rd month by John Endecott Govr.
- William Ingram & Mary Bairstow were married 14th — 3rd month by Major Humph. Atharton.
- John Davis & Returne Gridley daughter of Richard Gridley of Boston were married 9th — 2nd month by John Endecott Govr.
- Monsieur Christian Belvele & Lady Francis Hopkins were married 9th — 4th month by John Endicott Govr.
- Richard Tozer & Judith Smith were married 3rd — 5th month by Richard Bellingham Dept. Govr.
- Samuel Ruck & Margaret Clarke were married 22nd — 5th month by Richard Bellingham Dept. Govr.
- Mr. John Thompson of Newhaven & Anne Vicaris were married 4th — 6th month by John Endicott Govr.
- Ralph Hutchinson & Alice Bennet late wife of Francis Bennet were married 8th — 6th mo. by John Endicott Gov.
- William Lane & Mary Brewer daughter of Thomas Brewer of Roxbury were married 21st — 6th month by Richard Bellingham Dept. Govr.
- Mr. Richard Mather Pastor to the Church of Dorchester & Mrs. Sarah Cotton widow were married 26th — 6th month by John Endecott Govr.
- John Senter & Mary Muzzy were married 27th — 1st month by Richard Bellingham Dept Govr.
- Abner Ordway & Sarah Dennis widow were married 15th — 6th month.
- Samuel Norden & Elizabeth Pormott dau. of Philemon Pormott late of Boston were married ———
- Lawrence Willis of Bridgewater & Mary Makepeace daughter of Thomas Makepeace of Boston were married 5th — 7th month by Major Humphry Atharton.
- Michael Martine & Susanna Holliocke daughter of Edward Holliocke of Rumney Marsh were married 12th — 7th month by John Endecott Governor.
- Thomas Gould & Frances Robinson were married 10th — 7th mo. by Major Humph. Atharton.
- George May & Elizabeth Franckline were married 6th — 8th month by Richard Bellingham Dept Govr.
- Michael Willborne & Mary Beamsley daughter of William Beamsley of Boston were married 17th — 8th month by Richard Bellingham Dept. Govr.
- Henry Boyen & Frances Gill daughter of Arthur Gill of Boston were married 17th — 8th month by Major Humph. Atharton
- Thomas Cooper of Rehoboth & Ann Bosworth widow were married 17th — 8th month.
- William Ticknor & Hannah Stockbridge daughter of John Stockbridge were married 29th — 8th month by Major Humphery Atharton.
- John Rogers of Scituate & Roda King daughter of Thomas King of Scituate were married 8th — 8th month by John Endecott Govr.
- Edward Turner & Mary Sanford daughter of Richard Sanford were married 25th — 8th mo. by John Endecott Govr.
- Moses Mavericke & Eunice Roberts widow of Thomas Roberts were married 22nd — 8th mo. by John Endecott Govr.
- Francis Johnson & Hannah Hanbury were married 24th — 8th month by John Endecott Govr.
- Mr. Robert Drue & Mrs. Jemina Clarke daughter of John Clarke of Boston were married 6th — 9th month by John Endecott Govr.
- Jonathan Ransford & Mary Sunderland daughter of John Sunderland of Boston were married 29th — 9th mo. by Richard Bellingham Dept. Gov.
- William Wardell & Elizabeth Jellet widow were married 5th — 10th month by Richard Bellingham Dpt. G.
- John Mavericke & Catharine Skipper were married 9th — 2nd month by Richard Bellingham Dept. Govr.

Henry Keskeyes & Ruth Graves daughter of Richard Graves were married 7th — 6th month.
 Joseph Benham of Newhaven & Winifred King were married 15th — 11th month by Richard Bellingham Dept. Govr.
 William Hunter & Scissilla Corish were married 30th of January by Richard Bellingham Dept. Govr.
 John Hill & Elizabeth Strong were married 16th — 11th mo. by Major Humphrey Atharton.
 James Moore a Scottishman & Mary (?) Both were married 6th — 12th month by Richard Bellingham Dept. Govr.
 Henry Tite & Sarah Walton were married 11th — 12th month by Richard Bellingham Dept. Gov.
 James Sanford & Elizabeth Smith dau. of Francis Smith of Boston were married ———
 John Sanford & Sarah Potter widow were married 19th — 12th mo. by Major Humph. Atharton.
 Henry Bishop & Elizabeth Wilbore widow were married 20th — 12th month by Richard Bellingham Dept. Gov.
 Mr. John Joyliffe merchant & Ann Knight widow were married 28th — 11th month by John Endecott Gov.
 Edmond Coussins of Pulling Point & Margaret Bird an Irish maid, servant to John Grover of Rumney Marsh were married ———
 Joshua Hewes & Alice Crabtree the Relict of John Crabtree were married 11th — 12th month.
 Joseph Soper & Elizabeth Alcocke daughter of Thomas Alcocke were married 6th — 3rd mo. by John Endecott Govr.

FIRST CHURCH.

Mary of Rich. Chrihly	2 day	1 ¹ / ₂ mo.
Sarah of Francis Smyth's wife	9 day	1 mo.
Mary of John Leverett	16 day	1 mo.
Ann of William Padye	16 day	1 mo.
Hannah of Henry Powning	13 day	2 mo.
Benjamin of Tho. Clarke	20 day	2 mo.
Isaac of William Read	20 day	2 mo.
John of Monioy	27 day	2 mo.
Lydia of sister Bodman	27 day	2 mo.
Abigail of John Sweett	4 day	3 mo.
Samuel of Alexander Adams	11 day	3 mo.
Joseph of Thomas Saxton's wife	11 day	3 mo.
Thomas of John Marshall's wife	11 day	3 mo.
Mary of Josua Scottow	18 day	3 mo.
Wm. of Capt. Davenport of Ch. of Salem	18 day	3 mo.
Benjamin of Edward Hutchinson	8 day	4 mo.
Walter of Walter Merry	8 day	4 mo.
Jeremiah of Rachel & Tho. Harrod	8 day	4 mo.
John of Robert Feild	15 day	4 mo.
Abigail of Richard Waight	15 day	4 mo.
Anthony of Anthony Stoddard	22 day	4 mo.
Benjamin of Samuel Norden's wife	22 day	4 mo.
John of Robert Waker	20 day	5 mo.
Rebecca of Francis East	27 day	5 mo.
Henry of Henry Stevens	27 day	5 mo.
Stephen of Isaac Waker	17 day	6 mo.
John of John Nanny	17 day	6 mo.
Samuel of Rich. Woody	19 day	7 mo.
John of Wm Phillips	21 day	7 mo.
Henry of Henry Philips of Ch. of Dedham	28 day	7 mo.
Abigail of John Viall	26 day	8 mo.
John of Joseph Rocke	9 day	9 mo.
Martha of Tho. & Martha Fitch of Ch. of Watertowne	16 day	9 mo.
Samuel of Tho. Savidge	23 day	9 mo.

Lydia & } of Sarah &	23 day 9 mo.
Priscilla } Henry Messinger	23 day 9 mo.
Ezekiel of William Rickes	30 day 9 mo.
Edward of Sarah Elise	30 day 9 mo.
Marya of William Davis	7 day 10 mo.
Joseph of sister Pecke	14 day 10 mo.
Anna of John Harisson	21 day 10 mo.
William of Benja. Thwing	28 day 10 mo.
Ebenezer of John Ingolsby	4 day 11 mo.
Samuel of Peter Oliver	11 day 11 mo.
Thomas of Wm Cotton	18 day 11 mo.
Jonathan of George Orrice's wife	8 day 12 mo.
Elizabeth of Edmond Jackson	15 day 12
Joseph & } of Joseph How	22 day 12
Sarah } of Joseph How	22 day 12
John of John Barrill	22 day 12

1657.

TOWN.

Joseph of William & Anne Pollard born 15th March.
 Sarah of Thomas & Elizabeth Watkins born 1st March.
 Hester of Humphrey & Sarah Cumbee born 1st March.
 John of John & Emm Jephson born 1st Mar.
 Mary of Isaac & Dorcas Woody born 22nd March.
 Lydia of William & Mary Salter born 24th March.
 Zechariah of Zechariah & Elizabeth Phillips born 5th March.
 William of John & Martha Amee born 24th March.
 Grace of John & Returne Davis born 4th March.
 Joanna of Richard & Joanna Richardson born 25th Feb.
 John of Christopher & Elizabeth Pickett born 6th Sept.
 Gamaliel of Simon & Susanna Rogers born 26th March.
 John of Joseph & Mary Bastar born 25th March.
 Mary of Capt. James & Abigail Johnson born 27th March.
 Mary of John & Mary Dawes born 12th April.
 Mary of William & Lydia Browne born 23rd April.
 Mary of John & Tabitha Blower born 25th April.
 Hannah of Samuel & Isabel Howard born 11th April.
 Constance of Robert & Rebecca Winsor born 7th May.
 Elizabeth of Edward & Martha Arnold born 7th May.
 Elizabeth of George & Mary Dod born 5th April.
 Thomas of Matthew & Sarah Barnard born 14th April.
 Rebecca of Christopher & Rebecca Clarke born 4th May.
 Edward of Edward & Elizabeth Yeomans born 6th May.
 Anna of John & Mary Anderson born 5th May.
 Samuel of Thomas & Hannah Tilee born 1st May.
 Elizabeth of Samuel & Margaret Rucke born 11th
 Thomas of Richard & Judith Tozer born 5th May.
 Martha of David & Mary Evans born 28th May.
 Samuel of Henry Jr. & Hannah Felch born 3rd June.
 Paul of Elias & Anne Mavericke born 10th June.
 Sarah of William & Mary Lane born 15th June.
 Leah of Hepe & Rachel Allen born 16th May.
 Rebecca of Edward & Mary Kibby of Muddy River born 1st May.
 Abigail of William & Mary Smaledge born 28th May.
 Sarah of Francis & Catharine Dowse born 2nd June.
 John of Edward & Martha Allen born 8th June.
 Rebecca of Henry & Elizabeth Blake born 5th July.
 Sarah of William & Mary Hambleton born 7th April.
 Sarah of Richard & Sarah Martine born 2nd July.
 John of Henry & Jane Curtis born 2nd July
 James of James & Sarah Balston born 22nd June.
 Elizabeth of Sampson & Abigail Shore born 25th June.
 Jeremiah of William & Grace Toy born 18th July.

Joseph of Mr. Edward & Mary Ting born 12th July.
Sarah of Amos & Mary Richeson born 19th July.
Joseph of William & Sarah Halsey born 29th May.
Henry of Henry & Mary Willis born 2nd Aug.
Joanna of William & Susanna Davis born 26th July.
Ruth of Josiah & Mary Cobitt born 6th Aug.
Richard of Henry & Mary Ley born 27th July.
John of John & Mary Stockbridge born 19th July.
Mary of Henry & Frances Bowen born 14th Aug.
Sarah of Nathaniel & Mary Adams born 9th Aug.
Joseph of Thomas & Leah Baker born 16th Aug.
Samuel of Capt. Thomas & Mary Savage born 22nd Aug.
Rebecca of James & Lettis Neighbour born 30th March.
Elizabeth of Joseph & Elizabeth Bowd born 20th Aug.
Anna of Samuel & Lydia Turrell born 20th Aug.
Anna of Thomas & Rachel Harwood born 26th Aug.
Elizabeth of John & Jane Bushnell born 30th Aug.
Thomas of Edward & Jane Barker born 23rd Aug.
John of John & Emm Brakenbury born 9th Aug.
Sarah of Peter and Alice Place born 3rd Sept.
Sarah of Thomas & Sarah Stevens born 31st Aug.
Sarah of Robert & Sarah Mason born 20th Aug.
Richard of Richard & Jane Deuce born 4th Sept.
Sarah of James & Dorothy Wiseman born 18th Sept.
Joseph of William & Secilla Talbott born 13th Oct.
Abigail of Theodore & Abigail Atkinson born 9th Dec.
Elizabeth of Mr. Edward & Rachel Rawson born 12th Nov.
Elizabeth of Samuel & Elizabeth Norden born 2nd Sept.
Susan of Edward & Susan Haviland born 2nd Sept.
Joseph of Ezekiel & Elizabeth Hamlin born 18th Aug.
Sarah of Mr. Dean & Sarah Winthrop born 11th Feb.
Mary of Matthew & Mary Grosse born 17th Sept.
Sarah of Thomas & Sarah Scottow born 27th Sept.
Mehetabel of John & Susanna Sweet born 8th Oct.
John of William & Francis Parum born 24th Aug.
Sarah of John & Sarah Snelling born 4th Oct.
Samuel of David & Elizabeth Kelly born 9th Oct.
John of Josiah & Ranis Belcher born 9th Oct.
Theophilus of Theophilus & Hannah Frery born 20th Sept.
Hannah of Leift Joshua & Alice Hewes born 28th Oct.
Joseph of John & Martha Shaw born 11th Nov.
Elizabeth of Thomas & Elizabeth Barlow born 13th Nov.
Mary of Michael & Mary Willborne born 30th Oct.
Elizabeth of Nathaniel & Christian Fryer born 1st Nov.
Elizabeth of Ezekiel & Anna Woodward born 22nd Oct.
Sarah of Samuel & Sarah Davis born 19th Dec.
John of Mr. Simon & Hannah Lynde born 8th Nov.
Ephraim of William & Ruth Read born 23rd Nov.
Abigail of Jacob & Mary Eliot born 16th Dec.
Hannah of Richard & Grace Travis born 21st Aug.
Sarah of Mr. John & Martha Coggan born 25th Dec.
Mehetabel of John & Mary Hurd born 21st Dec.
William of William & Hannah Ballentine born 20th Dec.
Mary of John & Hannah Lowell born 7th Jan.
Jane of Abraham & Jane Browne born 9th Aug.
Sarah of William & Martha Dinsdall born 7th Jan.
Hannah of John & Mary Blake born 16th Jan.
Edward of William & Elizabeth Ingram of Rumney Marsh born 15th June.
Hannah of John & Hannah Andrewes born 20th Feb.
Abigail of Henry & Elinor Shrimpton born 3rd Jan.
Mary of Edward & Margret Cowell born 23rd Jan.
Elizabeth of Jos: & Lydia Gridley born 27th Jan.
Mary of Edw: & Mary Right born 19th Jan.
William of Wm. & Mary Ingram born 27th Jan.

Hanna of Tho: & Hanna Hull born 24th Jan.
 Timothy of Daniel & Esther Trevis born 14th Jan.
 Hannah of Mr. John & Judith Hull born 14th Feb.
 Ann of Tho: & Frances Gold born 5th Feb.
 Thomas of Wm. & Elizabeth Spowel born 14th Feb.
 Hannah of Benj: & Sara Briscoe born 6th Feb.
 Elizabeth of James & Sara Pemberton born 26th Dec.
 John of Ric: & Jane Chrichley born 10th Feb.
 Joseph of Mr. Jos: & Elizabeth Rock born 1st Feb.
 Richard of Tho: & Rebecca Hawkinnes born 20th Feb.
 Benj. of Mr. Wm. & Mary Paddy born 23rd Feb.
 James of Jonathan & Mary Bolston born 18th Feb.
 Sarah of John & Sara Tuckerman born 20th Nov.
 Elizabeth of George & Hanna Manning born 19th March.
 Daniel of Stephen & Elizabeth Greenleaf born 17th Feb.
 Samuel of Leift. Wm. & Bridget Phillips born 16th March.
 Sergeant of Thos. & Elizabeth Bill born 26th Feb.
 John of John & Thomasin Scarlett born 18th March.
 John of Edmond & Rebecca Maddoc born 12th March.
 Jonathan of Edward & Jane Baker born 20th Feb.

Mehetabel of Thomas & Rebecca Hawkins died 14th — 3rd month.
 Peter of Samuel & Isabel Howard died 31st — 1st month.
 Nicholas Busby died 28th — 6th month.
 Priscilla of Henry & Sarah Messinger died 21st — 4th month.
 John of Jeremiah & Ester Houchine died 2nd — 5th month.
 Sarah wife of John Lewes died 12th — 5th mo.
 John Mosse died 26th — 3rd month.
 Jonathan of Henry & Ellinor Shrimpton died 22nd — 5th month.
 Hannah of Henry & Elizabeth Powning died 6th — 5th month.
 John of John & Emm Jephson died 19th — 5th mo.
 Nicholas of Nicholas & Hannah Phillips died 1st — 6th month.
 William of William & Elizabeth Greenoe died 7th — 6th month.
 John of Lieut. William & Bridget Phillips died 8th — 6th month.
 Mehetabel of Henry & Ellinor Shrimpton died 29th — 5th month.
 John of Joseph & Elizabeth Rocke died 13th — 6th month.
 John of John Woodce of Roxbury and Mary his wife died 12th — 6th month.
 David of William & Hannah Balantine died 16th — 6th month.
 John of John & Elizabeth Picket died 14th — 6th mo.
 Stephen of Walter & Mary Sennet died 14th — 7th month.
 John of Nathaniel & Sarah Hunn died 3rd — 7th month.
 Joseph of Thomas & Leah Baker died 30th — 6th month.
 Mary of Edward & Margaret Coleman died 6th — 7th month.
 Leah of Hope & Rachel Allen died 9th — 7th mo.
 Edward Arnold died 8th — 6th month.
 Thomas of Thomas & Elizabeth Brattle died 5th — 7th month.
 William of Samuel & Sarah Davis died 21st — 7th month.
 Bartholomew Barlooe died 26th — 7th month.
 Samuel of Capt. Thomas & Mary Savage died 22nd — 6th month.
 Sarah of Thomas & Elizabeth Watkins died 26th — 6th month.
 Samuel of Peter & Sarah Olliver died 9th — 7th month.
 Ann of Arthur & Joanna Mason died 11th — 7th month.
 John Stockbridge died 13th — 8th month.
 Walter Merry was drowned 28th — 6th month.
 Theophilus of Theophilus & Hannah Frery died 24th — 7th month.
 Rebecca wife of Matthew Barnes died 19th — 7th mo.
 Elizabeth of Henry & Hannah Feltch Jr. died 18th — 8th month.
 William Rix died 13th — 9th month.
 Thomas Alcock died 14th — 7th month.
 Richard a neger servant of John Lowell died 7th — 9th month.
 Elizabeth of Sampson & Abigail Shore died 15th — 10th month.
 Sarah wife of Job Judkine died 26th — 9th mo.
 John of Robert & Sarah Waker died 3rd — 11th mo.
 Mary wife of Wm. Holloway died 24th Jan.
 Joseph Briscoe was drowned 1st Jan.

Wm. Weare died 11th Feb.

Sarah of Mr. John & Martha Coggan died 12th — 1st mo.

Experience dau. of Isaack & Susanna Walker died 11th Feb.

Thomas of Tho: Scottow & his late wife died 11th — 9th mo.

Hannah of Tho: & Hannah Hull died 9th — 12th mo.

Sarah of John & Sara Tuckerman died 4th — 10th mo.

Thomas Hokerson died at Phillip Longs intestate 11th Jan.

John Baker & Joan Swift daughter of Thomas Swift of Dorchester were married 5th — 9th month by John Winthrop Govr.

Thomas Hull & Hannah Townsend daughter of William Townsend of Boston were married 3rd April by John Endecott Governor.

Ferman Haddon was married to ——— 5th — 3rd month by Richard Bellingham Dept. Govr.

Edward Bunn of Hull widower & Elizabeth Mason were married 20th — 6th month by Richard Bellingham Dept Govr.

William Edmunds of Lynn & Ann Martine widow were married 1st — 7th month by Mr. Simons of Ipswich.

Joseph Hutchins & Mary Edmonds daughter of William Edmonds of Lynn were married 1st — 7th month by Mr. Simons of Ipswich.

Thomas Jones of Hull & Abigail Elithrop widow were married 25th June by Richard Bellingham Dept. Govr.

George Robinson & Mary Bushnell were married 3rd — 8th month by John Endecott Govr.

Samuel Clement & Hannah Ings daughter of Madit Ings of Boston were married 2nd — 5th mo. by Major Humph. Atharton.

Nath. Greene & Mary Houchine daughter of Jeremiah Houchine were married 22nd — 4th mo. by John Endecott Govr.

James Riseing & Elizabeth Ensdell daughter of Robert Ensdell of Meadfield were married 7th — 5th month by John Endicott Govr.

Joshua Carwithy & Elizabeth Farnam daughter of John Farnam of Boston were married 6th — 6th month by Major Humph. Atharton.

Samuel Stratton of Watertowne & Margaret Parker widow were married 27th — 6th month by John Endecott Govr.

John Harris & Hannah Briggs daughter of William Briggs of Boston were married 10th — 7th month by John Endecott Govr.

Mr. Samuel Torrey of Hull & Mary Rawson daughter of Edward Rawson of Boston were married 15th — 3rd month by Richard Bellingham Dept Govr.

James Breeding & Hannah Rocke daughter of Joseph Rocke of Boston were married 9th — 8th month by John Endicott Govr.

John Lawrence of Muddy River & Sarah Buckmaster were married 30th September.

Edward Davis & Hannah Gridley daughter of Richard Gridley of Boston were married 16th — 7th month by John Endecott Governor.

Isaac Coussins & Ann Hunt formerly wife of John Edwards were married.

Elias Henly & Sarah Thompson were married 4th — 9th month by Richard Bellingham Dept. Govr.

Matthew Barnes & Elizabeth Hunt widow were married 4th — 9th month by Richard Bellingham Dept. Govr.

John Jackson & Jane Thomas daughter of Evan Thomas were married 14th — 9th mo. by John Endecott Govr.

Robert Thornton & Mary Merry late wife of Walter Merry were married 13th — 9th month by John Endecott Govr.

Joseph Sowther & Elizabeth Fairefeild daughter of Daniel Fairefeild of Boston were married 22nd — 8th mo. by John Endecott Govr.

Mr. Edward Lane & Hannah Keayne were married 11th — 10th mo. by John Endecott Govr.

Thomas Wiborne & Abigail Eliot daughter of Jacob Eliot deceased were married 16th — 10th month by John Endecott Govr.

Richard Travis & Grace Clements daughter of Francis Clements of Glassenbury in Sumerseshire were married 22nd — 10th month by John Endecott Govr.

Tristram Hedges & Ann Nickerson of Boston were married 20th — 10th month by John Endecott Governor.

Henry Crab & Hannah Emmons daughter of Thomas Emmons of Boston were married 1st — 11th month by John Endecott Governor.
 Nath Reynolds & Sarah Dwite daughter of John Dwite of Dedham were married 30th — 10th month by John Endecott Governor.
 James English & Joanna Farnum daughter of John Farnum of Boston were married 7th — 11th month by Major Humph. Atharton.
 Edward Wright & Mary Powell were married 27th — 3rd month by John Endecott Gov.

FIRST CHURCH.

Rebecca of Gamaliel Phipeny's wife	1 day	1 mo.
Ebenezer of Timothy Proute	15 day	1 mo.
Mary of James Johnson	22 day	1 mo.
Ann of William Salter	22 day	1 mo.
Gamaliel of Simon Rogers	22 day	1 mo.
John } of William Dinsdale	5 day	2 mo.
Adam } of William Dinsdale	5 day	2 mo.
William } of William Dinsdale	5 day	2 mo.
Martha } of William Dinsdale	5 day	2 mo.
Mary } of William Dinsdale	5 day	2 mo.
Ann of Samuel Sindale of Ch. of Newberry	26 day	2 mo.
Rebecca of sister Clarke	10 day	3 mo.
Elizabeth of William Arnoll's wife	10 day	3 mo.
Constance of Robert Winsor's wife	10 day	3 mo.
Deborah of Edward Devotion	17 day	3 mo.
Sarah of Deane Winthorp's wife	24 day	3 mo.
Sarah of Francis Dowse	21 day	4 mo.
Rebecca of John Kibby's wife	21 day	4 mo.
Elizabeth of Sampson Shoore	28 day	4 mo.
Joseph of Wm. Asey's wife	28 day	4 mo.
Rebecca of Henry Blauge	5 day	5 mo.
Joseph of Edward Ting	19 day	5 mo.
Jeremiah of William Toy	19 day	5 mo.
Sarah of Amos Richisson	19 day	5 mo.
John of John Stockbridg of Ch. of Sittuat	26 day	5 mo.
Johanna of William Dawes	2 day	6 mo.
Mary of sister Harvey	2 day	6 mo.
Philip of Mrs. Ann lock	2 day	6 mo.
Ann of Daniel Turand's wife	23 day	6 mo.
Ann of Tho: Harrod's wife	30 day	6 mo.
Sarah of Peter Place	6 day	7 mo.
Theophilus of Theophilus Frayry	20 day	7 mo.
Sarah of Tho: Scottow	4 day	8 mo.
Mehitabel of John Sweet	11 day	8 mo.
John Bakon of Ann Pope aged 13 years	18 day	8 mo.
Ephraim Pope &	18 day	8 mo.
Elizabeth Pope	18 day	8 mo.
Elizabeth of Mr. Rawson of Newbery	15 day	9 mo.
Ephraim of William Read of Waymouth	29 day	9 mo.
Abigail of Theodore Atkinson	13 day	10 mo.
Abigail of Jacob Eliot	20 day	10 mo.
Sarah of John Coggan of Ch. of Dorchester	27 day	10 mo.
Mebetabel of Ann Hurd	27 day	10 mo.
Sarah of William Dinsdale	10 day	11 mo.
Mary of John Loell	10 day	11 mo.
Ann of John Blaug of Dorchester	17 day	11 mo.
Mary of William Cowell's wife	24 day	11 mo.
Joseph of Joseph Rocke	7 day	12 mo.
Hannah of John Hull	14 day	12 mo.
Elizabeth of James Pemerton	14 day	12 mo.
Benjamin of Mr. Pady	28 day	12 mo.
Martha of Mrs. Duncan	28 day	12 mo.

1658.

TOWN.

Anna of Edmond & Sarah Ellis born 1st 5th day of Febr.
 Mary of Francis & Catharine Dowse born 30th January.
 William of Bartholmew & Elizabeth Stretton born 30th January.
 William of Thomas & Hannah Hull born 23rd January.
 John of John & Susanna Cole born 23rd January.
 Bethshua of Robert & Elizabeth Sanford born 6th Jan.
 Samuel of Simon & Christian Roberts born 18th March.
 Rachel of Thomas & Leah Baker born 7th Feb.
 Elisha of Edmond & Mary Jackson born 12th Feb.
 David of William & Hannah Ballantine born 5th Feb.
 Thomas of Joseph & Francis Howe born 7th Feb.
 Benjamin of Stephen & Jane Buttler born 10th Feb.
 Richard of Richard & Frances Woodde born 3rd Dec.
 Bethia of Mr. Henry & Elinor Shrimpton born 30th Jan.
 Mary of Nathaniel & Isabell Wales born 9th Feb.
 Mary of Tho: & Martha Fitch born 17th Feb.
 David of David & Martha Evans born 2nd Feb.
 Oulando of Oulando & Sarah Bagly born 18th Feb.
 Henry of John & Anne Chamberline born 3rd Feb.
 John of John & Jane Jackson born 11th Feb.
 Thomas of Richard & Joice Staines born 16th Aug.
 Peter of John & Ruth Ingoldsby born 8th March.
 Mary of Richard & Johannah Knight born 25th Jan.
 John of Nathaniel & Sarah Hunn born 12th Feb.
 Hannah of Christo: & Anne Holland born 7th Dec.
 Mary of John & Susanna Cole born 6th Oct.
 Dorothy of John & Dorothy Downes born 31st Jan.
 John of John & Sarah Parker born 25th Dec.
 Nathaniel of Samuel and Thomasin Mayo born 1st April.
 Dinisha dau. of Henry & Ruth Kiskees born 31st Oct.
 Christian daughter of Mr. Anthony and Christian Stoddard born March 22.
 Edward of Edward and Elisabeth Page born March 20th.
 William of William and Rebecca Thorull born March 16th.
 Martha of Francis and Joice Burges born March 11th.
 Josiah of George and Mary Munjoy born April 4th.
 Benjamin of Francis and Elisabeth Smith born April 10th.
 Sarah of John and Sarah Miriam born April 24th.
 Sarah of John and Mary Gilbert born March 19th.
 Job of Job and Francis Hawkins born April 20th.
 Joseph of Joseph and Ruth Moore born May 7th.
 Elisabeth of John and Elisabeth Clough born May 10th.
 Elisabeth of James and Mary Denis born May 20th.
 Mary of John Bowhonno a Scotchman and Moer his wife & Irishwoman born
 May 9th.
 Sarah of Benjamin and Wilmutt Phippen born April 13th.
 Hannah of Henry and Elisabeth Powning born May 22nd.
 Hannah of Mr. Edward and Abigail Hutchinson born May 16th.
 Mehitabell of Mr. Jacob and Margret Sheafe born May 28th.
 Emm of John and Emm Jepson born June 2nd.
 Temperance daughter of Robert and Judith Rachell born June 8th.
 George of George and Mary Robinson born March 30th.
 Joseph of Robert and Katherin Nanny born June 1st.
 Nathaniel of Nathaniel and Margret Gallop born June 14th.
 Martha of Richard and Lucrezia Smith born June 16th.
 Nathaniel of Peter and Mary Duncun born June 29th.
 Elizabeth of Rice and Ann Jones born July 6th.
 Mary of Jerem: and Sara Morrill born January 5th.
 John of John and Jane Baker born July 17th.
 Mary of Peter and Mary Felt born April 17th.

Susanna of Alexander and Mary Addams born July 21st.
 Robert of Robert and Sara Breck born June 24th.
 Elisabeth of Robert and Mary Feild born June 17th.
 Thomas of Mr. Thomas and Elisabeth Brattle born June 20th.
 Thomas of Thomas and Mary Stevens born May 20th.
 James the son of
 Hopestil son of Henry and Elisabeth Bridgham born July 29th.
 Nathaniell of Mr. Jeremiah and Esther Houchinne born July 27th.
 Rebecca of Captain William and Hulda Davis born August 3rd.
 Elisabeth of James and Hanna Brading born August 5th.
 Mehittabel of Daniell and Mary Stone born August 1st.
 Joseph of John and Hannah Bateman born August 21st.
 Joseph of Joseph and Abigail Brisco born August 21st.
 John of John and Hannah Harris born August 8th.
 Richard of Mathew and Elisabeth Coy born September 6th.
 Bethia of John and Persis Harrison born September 7th.
 Hannah of John and Sara Jeffs born September 5th.
 William of William and Elizabeth Greenowe born September 5th.
 Hannah of Francis and Martha East born September 24th.
 John of Theophilus and Hannah Frary born September 19th.
 Martha of Andrew and Elisabeth Cload born September 18th.
 Ruth of Edmond and Susan Jacklin born August 4th.
 Lydia of Robert and Mary Right born August 24th.
 Joseph of Joseph and Elisabeth Souther born August 20th.
 Edward of Edward and Elisabeth Wanton born September 18th.
 Nathaniel of Arthur and Jane Kind born August 1st.
 Mary of Richard and Mary Seward born October 2nd.
 Mary of Henry and Julian Lamprey born March 19th.
 Elihu of James and Mary Hawkinnes born September 22nd.
 Samuel of Edward and Hannah Davis born September 30th.
 Lazarus of James and Mary Hudson born October 22nd.
 Elisabeth of John and Elizabeth Fernside born October 26th.
 James of James and Joanna Englishe born October 15th.
 Susanna of Richard and Anna Gridley born October 23d.
 Joseph of Joseph and Elisabeth Swett born October 26th.
 Timothy of Henry and Mary Phillips born September 15th.
 Martha of Obadiah and Alice Emons born October 12th.
 Ellen of David and Mary Faulkner born October 20th.
 Experience daughter of Robert and Mary Thornton born November 2nd.
 John of John and Ann Sandey born October 14th.
 Martin of Joseph and Joanna Lellock born November 22nd.
 Zechariah of Zechariah and Hannah Buckmaster born November 28th.
 Jane of Thomas and Jane Young born November 28th.
 John of William and Ann Alford born November 29th.
 Nathaniel of Thomas and Ann Saxton born November 29th.
 Faith of Thomas and Elisabeth Pecke born December 8th.
 Samuel of Mordecai and Alice Nichols born December 9th.
 Richard of Richard and Rebecca Wayte born December 16th.
 Mary of Anthony and Alice Shaw born December 17th.
 Thomas of Thomas and Katherine Warner born December 24th.
 Hannah of Mr. Thomas and Mary Broughton born December 28th.
 James of Ambrose and Mary Bennet born January 7th.
 Abigail of Nicholas Stone born November 20th.
 Jane of Edward and Patience Blake born September 29th.
 Abigail of Thomas and Abigail Wyborn born January 6th.
 Experience daughter of Edward and Sarah Grant born September 26th.
 Richard of John and Sarah Tuckerman born November 27th.
 Joseph of James and Lydia Burgess born January 7th.
 Joseph of Joseph and Ruth Belknap born January 26th.
 Samuells of Thomas and Dorothy Bligh born January 20th.
 Ruth of Thomas and Joane Joy February 28th.

John of William & Anne Alford died 29th Jan.

Simon of Simon & Christian Roberts died last of January.

Elizabeth of Rice & Anne Jones died 31st Jan.
 Samuel of late Henry & Sibella Sands died 20th Febr.
 Joshua Newgate Senior died 12th November.
 Mary of William & Hannah Townsends died 29th November.
 John of John & Jane Jackson died 18th Jan.
 Ezekiel of William & Grace Rix died 17th — 12th mo
 James Wyborne deceased March 7th.
 Elisabeth of Thomas and Mary Read March 28th.
 Francis wife of Thomas Boyden died March 17th.
 Hannah wife of Samuel Clement died Aprill 9th.
 Edward of Edward and Sarah Ellis died April 9th.
 Elisabeth wife of Thomas Bill died March 5th.
 Mary of Jeremia and Sarah Morrill deceased January 16th.
 Mathew Smith of Watertown son-in-law to Thomas Cooper of Boston
 drowned at Noddles Island May 21st.
 Elisabeth of James and Mary Denis deceased June 5th.
 Elisabeth wife of Thomas Williams deceased Aprill 30th.
 Joseph of Robert and Katherin Nanny died June 21.
 Elisabeth wife of Comfort Starr died June 25th aged 63.
 Mr. John Coggan deceased April 27th.
 Mary wife of John Center of Winnysimmet died July 25th.
 Samuel of Samuel and Sara Bucknell died July 29th.
 Elisabeth Lyon servant of Joseph Moore died July 18th.
 Hannah of Benjamin and Sarah Briscoe died 7th of the 5th month.
 Mehittabell of John and Susanna Sweet deceased July 27th.
 Richard of Richard and Mary Hicks deceased July 27th.
 John of Edward and Martha Allen died July 5th.
 James of Jonathan and Mary Balston deceased Augt 26th.
 Elisabeth Tilston servant of Captain Waldren died September 2nd.
 Joseph of Edward and Mary Ting died July 30th.
 Hanna of Henry and Elisabeth Powning died July 23rd.
 Anna of Daniell and Lydia Turell died August 8.
 Lydia wife of Mr. John Miller minister of Yarmouth died at the house of
 Thomas Bumstead of Boston August 7th.
 Mary wife of Daniell Stone died August 8th.
 Sarah wife of James Pitney deceased August 14th.
 Mary of Richard and Mary George deceased August 17th.
 John Dawson servant of Samuel Norden died August 16th.
 Sarah of Thomas and Sarah Stevens deceased June 29.
 Mr. William Paddy merchant died August 24th.
 George Munning deceased August 24th.
 Mary of John Jr. and Mary Phillips deceased August 5.
 Anna of Thomas and Rachel Harwood deceased August 15.
 William Harvyne deceased August 15th.
 John Barrell deceased August 29th.
 Mary wife of Mr. Richard Barrett of South Hampton upon Long Island died
 at the house of Robert Nashe August 25.
 Samuel Whiting died at Mr. Thomas Lakes September 6.
 Joseph of Joseph and Ruth Moore died August 14.
 Ruth Mr. Joseph Moore's wife died September 3.
 Addingstill daughter of Michael and Mildred Willis died September 6.
 Mary Gibbons deceased at Captain Oliver's September 5th.
 John of Robert Sanderson deceased the 17th of the 7th month.
 Martha of Mr. David and Martha Evans died the 8th of the 7th month.
 Elisabeth of John and Elisabeth Fernside died the 26th of the 7th month.
 John of Richard and Jane Crichley died September 25th.
 John of John and Thomasin Scarlet deceased September 13.
 John of Orlando and Sara Bagly deceased August 31.
 Ensigne William Beamesly deceased September 29th.
 Thomas Rowell deceased at Richard Bradley's house in Boston Dec. 29.
 Joseph Dawson servant to Henry Bridgham deceased the 12th of the 8th
 month.
 John Minord deceased October 4th.
 Abigail of Nicholas and Hannah Phillips died 2nd of 7th month.

Mr. Simon Eires deceased the 10th November.
 Samuel of David and Elisabeth Kelly September 11th.
 John of Richard Wayt deceased 5th of November.
 Mary wife of Edmund Burfe deceased August 15th.
 Robert Battle deceased December 23d
 John of Robert and Katherin Nanny died 11th of the 10th month.
 Joseph of Mr. John and An Newgate died 14th of the 10th month.
 Experience daughter of Robert Thornton died 24th of the 10th month.
 Enoch of Ephraim and Ebbott Hunt deceased January —
 Mary wife of John Smith deceased January 11th.
 Hannah Richards servant to Rice Jones died January 21st.
 Martha Stacye apprentice to Robert Waker died January 23d.
 Jane wife of Evan Thomas deceased January 12.

Samuel Sheeres of Dedham & Ann Grosse of Boston widow were married
 15th — 6th month by Richard Bellingham Dept. Govr.
 John Sunderland & Mary Vjall dau. of John Vjall were married 26th Jan. by
 Major Humphrey Atherton.
 Thomas Boyden & Hannah Mosse widdow were married 3rd Nov. by Richard
 Bellingham Dep. Gov.
 Nathaniel Barnard & Mary Lugg were married 11th Feb. by Richard Belling-
 ham Dep. Gov.
 James Webster a Scotchman & Mary Hay an Irish maid were married 14th
 Feb.
 Joshua Nash & Elizabeth Porter dau. of Edward Porter of Boston were mar-
 ried 23rd Feb. by John Endecot Gov.
 John Megdaniell & Elizabeth Smith were married 17th May by John Endecott
 Gov.

FIRST CHURCH.

Samuel of Wm. Philips	21 day	1 mo.
John of John Scarlet's wife	21 day	1 mo.
Elizabeth of George Manning's wife	21 day	1 mo.
Christian of Mr. Stoddard	28 day	1 mo.
Benjamin of Francis Smyth's wife	18 day	2 mo.
Sarah of John Meriam	25 day	2 mo.
Amos of John Tinker	16 day	3 mo.
Elizabeth of John Clough	16 day	3 mo.
Ann of Edward Hutchisson	23 day	3 mo.
Ann of Henry Powning	23 day	3 mo.
Elizabeth of Mary Dinis	23 day	3 mo.
Mehetabel of Jacob Sheaffe	30 day	3 mo.
Joseph of Mr. Nanny of Hampton	13 day	4 mo.
Elizabeth of Robert Feild	20 day	4 mo.
Joseph of James Jemson	20 day	4 mo.
Zachariah of Tho. Savage	4 day	5 mo.
Nathaniel of Mrs. Duncan	4 day	5 mo.
Elizabeth of Rice Joanes' wife	11 day	5 mo.
Thomas of Henry Stevens	11 day	5 mo.
Thomas of Thomas Brattle	25 day	5 mo.
Elizabeth of Alexander Adams	25 day	5 mo.
Nathaniel of Jeremiah Howchin	1 day	6 mo.
Hopstill of Henry Bridgham	1 day	6 mo.
Rebecca of Wm. Davis	8 day	6 mo.
Elizabeth of Mr. Brayden of Newbery	8 day	6 mo.
Mehitabel of Mr. Stone of Cambridge	8 day	6 mo.
Joseph of John Bateman's wife	28 day	6 mo.
Joseph of Abigail Brisco	28 day	6 mo.
Bethya of John Harrison	12 day	7 mo.
Timothy of Henry Phillips	19 day	7 mo.
Wm. of Tho. Harwood's wife	19 day	7 mo.
John of Theophilus Frayry	26 day	7 mo.
Ann of Francis East	26 day	7 mo.

Samuel of Davis	3 day 8 mo.
Joseph of Joseph Swett of Ch. of Newbery	31 day Oct.
Elizabeth of Mr. Furnicee of Ch. of Duxbery	31 day Oct.
John of Mr. Alford	5 day 10 mo.
Richard of Rich: Woody of Roxbery	5 day 10 mo.
Samuel of sister Nichols	12 day 10 mo.
Faith of sister Pecke	12 day 10 mo.
Richard of Rich: Waight	19 day 10 mo.
Grindall of Edward Rawson	30 day 11 mo.
Naomi of Francis Dowse	6 day 12 mo.
Ann of Edward Eellice's wife	6 day 12 mo.
Thomas of Joseph How	13 day 12 mo.
Elisha of Edmond Jackson	13 day 12 mo.
Elizabeth of Thomas Fitch of Ch. of Watertowne	20 day 12 mo.

[The following births were all recorded in 1659, and are therefore printed together here. — W. S. A.]

William of William & Rachel Griggs born 2nd April, 1640.
 Sarah of William & Rachel Griggs born 6th October, 1642.
 Rachel of William & Rachel Griggs born 13th Oct., 1644.
 Isaac of William & Rachel Griggs born 5th Oct., 1646.
 Elizabeth of William & Rachel Griggs born 3rd October, 1648.
 Jacob of William & Rachel Griggs born last Nov., 1658.

1659.

TOWN.

Elizabeth of Clement & Mary Grosse born 5th March.
 Sarah of John & Susanna Griffine born 10th March.
 James of Peter & Sarah Olliver born 19th March.
 Rebecca of Mr. William & Mary Paddy born 3rd Aug.
 Lydia of Jeremiah & Sarah Murrells born 30th March.
 Jonathan of William & Ruth Read born 23rd April.
 Mehittabel of Samuel & Mary Gallop born 5th April.
 Anne of John & Ann Checkly born 22nd April.
 Mary of Lyonel & Ellinor Wheatly born 14th April.
 Richard of John & Return Davis born 15th April.
 Anne of Thomas & Anne Walker born 1st May.
 Samuel of Tho. & Elizabeth Smith born 20th April.
 James of Roger & Sarah Burges born 24th April.
 Moses of Thomas & Sarah Stevens born 22nd April.
 John of John & Sarah Scate born 14th April.
 Mary of Mr. Thomas & Mary Lake born 1st May.
 Mary of John & Mary Williams born 29th March.
 Nathaniel of Nathaniel & Grace Sherman born 19th December.
 Elizabeth of William & Alice Russell born 22nd April.
 John of John & Elizabeth Brookin born 11th May.
 Elizabeth of Will. & Elizabeth Browne born 5th May.
 Elizabeth of John Jr. & Elizabeth Blackleach born 25th May.
 Thomas of Thomas & Elizabeth Watkin born 10th May.
 Priscilla of Henry & Sarah Messinger born ———
 Martha & Mary twins of Hope & Rachel Allen born 15th June.
 Nathaniel of Samuel & Sarah Bucknell born 1st June.
 Mary of Edward & Mary Belcher born 4th April.
 Hannah of William & Elizabeth Sumner born 10th June.
 Susanna of John & Phillip Snell born 21st June.
 Samuel of Daniel & Lydia Turrell born 14th June.
 Thomas of Ensigne Joshua & Lydia Scottow born last June.
 Elnathan son of Capt. Richard & Anne Waldren 6th July.
 Elizabeth of Joshua & Elizabeth Carwithy born 6th June.
 John of Edward & Martha Allen born 21st June.
 Jacob of Jacob deceased & Margaret Sheafe born 23rd July.

Elizabeth of Richard & Mary Hicks born 25th July.
 Martha & Mary twins of William & Ester Pearse born 26th May.
 Sarah of Nathaniel & Sarah Reynolds born 26th July.
 Sarah of Hen. & Elizabeth Powning born 3rd August.
 Sarah of Joseph & Sarah Sutton born last July.
 Sarah of Tho. & Elizabeth Barlow born 18th July.
 Thomasin daughter of Tho. & Sarah Scottow born 14th August.
 Elizabeth of Gamaliel & Sarah Phipeny born 10th Aug.
 David of Nathaniel & Mary Adams born 30th June.
 Susanna of John & Hannah Andrewes born 12th August.
 Joshua of Henry & Mary Stevens born 15th May.
 Samuel of Robert & Catharine Nanny born 27th August.
 Zecharia of Samuel & Sarah Doves born 29th July.
 Hannah of Samuel & Ann Flacke born 21st August.
 Elizabeth of Jonathan & Mary Bolston born 12th Aug.
 Benjamin of Mr. Joseph & Elizabeth Rocke born 9th Sept.
 Sarah of John & Mary Stone born 16th Sept.
 Mary of John & Mary Kneeland born 6th Oct.
 James of John a Scotchmā & Ruth Marshall born 29th Sept.
 Thomas of Robert & Rebecca Winsor born 1st October.
 John of Isaac & Dorcas Woodee born 18th Sept.
 Joseph of William & Anne Clarke born 10th Sept.
 Mary of William & Mary Hunter born 5th Sept.
 Samuel of Samuel & Constance Mattocke born 15th October.
 Lydia of Richard & Lydia Garrett born 10th Oct.
 William of William & Mary Lane born 1st Oct.
 Sarah of William & Ann Pollard born 20th October.
 John of John & Elizabeth Megdaniell born 13th Sept.
 Mary of Alexander Bogle born 17th Oct.
 Anne of George & Lydia Nowell born 13th Oct.
 Ebenezer of Richard & Thomasin Collicott born 6th Sept.
 Sarah of Thomas & Abigail Bill born 18th Sept.
 Ephraim of Daniel & Easter Travis born 13th Sept.
 William of Ezekiel & Elizabeth Hamline born 9th Oct.
 Mary of Robert & Mary Stroud born 11th Oct.
 John of John & Tabitha Blower born 19th Oct.
 Thomas of Arthur & Jane Kinde born 26th Sept.
 James of James & Mary Webster born 16th July.
 Susanna of William & Lydia Browne born 24th Oct.
 Mary of Peter & Mary Duncan born 12th Nov.
 Hannah of James & Abigail Johnson born 23rd Nov.
 Nathaniel of Mr. Simon & Hannah Lynd born 22nd Nov.
 Thomas of Thomas & Frances Gold born 27th Nov.
 Jonathan of John & Susanna Farnum born 13th Nov.
 Thomas of Samuel & Margaret Rucke born 9th July.
 John of William & Sarah Eustis born 8th Dec.
 Nathaniel of Henry & Elizabeth Bridgham born 8th Dec.
 Mary of George & Hannah Manning born 15th Dec.
 Mary of John & Elizabeth Aldin born 17th Dec.
 Huldah of Capt. William & Huldah Davis born 21st Dec.
 Hannah of John & Mary Glover born 5th April.
 Bethia & Abigail of James & Mary Hudson born 13th Dec.
 John of John & Jane Bushnell born 19th January.
 John of Josiah & Ronas Belcher born 23rd Dec.
 Samuel of Henry & Hannah Crab born 23rd Dec.
 Thomas of Obediah & Alice Emmons born 7th Jan.
 Susanna of Samuel & Elizabeth Norden born 26th Nov.
 Hannah of John & Susanna Dawes born 7th Jan.
 Jeremiah of Nathaniel & Mary Greene born 29th Dec.
 Samuel of George & Elizabeth Orris born 20th Dec.
 John of Charles & Abigail Stockbridge born 2nd Dec.
 Grace of Tristram & Anne Hedges born 20th Aug.
 Mary of Jonathan & Mary Ransford born 2nd July.
 Elisha of John & Martha Mellowes born 16th Nov.

Mary of Joshua & Mary Atwater born 15th Jan.
 Nathaniel of Robert & Sarah Mason born 23rd Dec.
 Samuel of John & Isabel Pearse born 14th Jan.
 Joseph of Joseph & Elizabeth Soper born 5th Jan.
 Mehitabel of Mehallalaell & Hannah Munnings born 20th January.
 Benjamin of Joseph & Elizabeth Sweete born 22nd January.
 William of Lieut William & Bridget Phillips born 28th January.
 Martha of John & Martha Amey born 23rd Febr.
 Christopher of Mr. Christopher & Rebecca Clarke born 19th January.
 Jeremiah of Jeremiah & Sarah Fitch born 5th Feb.
 Elizabeth of Matthew & Mary Grosse born 3rd Feb.
 Samuel of Amos & Mary Richardson born 18th Feb.
 Mary of Samuel & Isabel Howard born 15th Sept.
 Margaret of John & Mary Bowhonnnon born 8th January.
 Mary of John & Elizabeth Purchase born 3rd Feb.
 Mehitabel of John & Susanna Sweete born 8th Dec.
 Jonathan of John & Elizabeth Stutly born 8th Dec.
 Hannah of Rice & Ann Jones born 4th May.
 Deborah of Benjamin & Deborah Thwing born 13th January.
 Thomas of Thomas & Mary Lambert born 6th November.
 Sarah of James & Martha Robinson born 24th March.
 Elizabeth of William & Hannah Ballantine born 8th March.
 Michael of Michael & Susanna Martine born 10th Feb.
 Rebecca of Elias & Ann Maverick born 1st January.
 Matthew of Matthew & Estech Bunn born 9th June.
 Joseph of Joseph & Elizabeth Bowd born 28th Oct.
 Hannah of William & Elizabeth Ingram born 15th June.
 Mary of Robert & Betteris Risdon born 15th June.
 Sarah of David & Lydia Chapin born 3rd March.

Mary wife of Edmund Jackson died 18th Jan.
 Jacob Sheafe died 22nd March.
 Benjamin of Timothy & Margaret Prout died 5th April.
 Martha of Henry & Gartred Pease died 15th April.
 William of William & Elizabeth Greenough died 27th April.
 Robert Raynolds died 27th April.
 Ann of Thomas & Ann Walker died ———.
 John of John & Joanna Baker died 23d May.
 Richard Webb died 2nd July.
 Sarah of Benjamin & Sarah Brisco died 26th June.
 Lydia wife of Daniel Turell died 23rd June.
 Jane Francklin widow died 16th July.
 Jane wife of Martine Stebbins died 24th July.
 Experience son of Nicholas & Dorothy Vpshall died 2nd Augus
 Giles Kimball died 1st August.
 Anne Burrell widow died 3rd August.
 Jacob of late Jacob Sheafe died 4th August.
 Thomas Walker died 11th August.
 Elizabeth of Mr. Henry & Elinor Shrimpton died 12th August.
 Jonathan of William & Ruth Read died 2nd July.
 John of William & Elizabeth Holloway died 6th August.
 Hannah of Francis & Mary East died 15th June.
 John of John & Elizabeth Brookine died 16th Aug.
 Abigail of Humphery & Mary Millam died 7th May.
 Thomasine of Thomas & Sarah Scottow died 26th Aug.
 Sarah wife of Matthew Barnard died 31st Aug.
 Hannah of John & Mary Blake died 30th Aug.
 Stephen Webb servant to Lieut. William Philips died 18th Sept.
 Mary of Mr. Thomas & Mary Lake died 25th Oct.
 Mrs. Sarah Pacy died 3rd November.
 Samuel of Silvester & Lucy Harbert died 6th November.
 Ephraim of Daniel & Ester Travis died 1st Nov.
 Joshua of Henry & Mary Stevens died 10th Nov.
 Mehalaliell of Mehalaliell & Hannah Munnings died 22nd Nov.

Mary wife of Richard Martine died 28th Nov.
 Martha of William & Ester Pearse died 11th Dec.
 Elnathan dau. of Capt. Richard & Ann Waldren died 10th Dec.
 Martha of John & Martha Amey died 20th Dec.
 Joshua of Thomas & Sarah Scottow died 8th January.
 Lydia of Richard & Lydia Garrett died 28th Dec.
 John of Samuel & Mary Flacke died 30th Dec.
 William of Thomas & Rachel Harwood died 4th Dec.
 Caleb of Richard & Jane Peacocke died 26th Sept.
 Mr. Comfort Starr died 2nd January.
 Grace of Tristram & Ann Hedges died 4th Jan.
 Deborah Burnam servant to Benjamin Ward died 11th or 12th Sept.
 John of John & Elizabeth Megdaniell died 4th Jan.
 Ruth of Edmond & Susanna Jackson died 20th Jan.
 Susanna wife of Robert Blott died 20th Jan.
 John of Charles & Abigail Stockbridge died 1st Febr.
 Dowsabell wife of Mr. Henry Webb died 28th Feb.
 Mahalaleel Munnings was drowned 27th Feb.
 Hannah of ——— & Susanna Dawes died 14th January.

Richard Barnard & Elizabeth Negus dau. of Benjamin Negus of Boston were married 2nd March by Major Humphrey Atherton.
 Richard Stabbs of Hull & Margaret Read were married 3rd March by Major Humphrey Atherton.
 Samuel Fisher & Milcha Snow dau. of Thomas Snow of Boston were married 22nd March by John Endecott Gov.
 John Rosse & Mary Osborne dau. of John Osborne of Weymouth were married 7th May by John Endecott Gov.
 Thomas Shearer & Hannah Bumstead dau. of Thomas Bumstead of Boston were married 18th April by Richael Bellingham Dep. Gov.
 James Penniman & Mary Crosse were married 10th May by John Endecott Gov.
 Mr. William Blackston & Sarah Stephson widow were married 4th July by John Endecott Gov.
 William Shutt & Hopestill Viall dau. of John Viall of Boston were married 1st July by John Endecott Gov.
 Zechariah Gillam & Phebe Phillips dau. of Lieut. Wm. Phillips of Boston were married 26th July.
 Richard Price & Elizabeth Crumwell were married 18th August by Major Humphrey Atherton.
 Philip Harding & Susanna Haviland widdow were married 23rd August by John Endecott Gov.
 Thomas Paine & Hannah Bray dau. of Thomas Bray of Newhaven were married 25th August by John Endecott Gov.
 Richard Hollingworth & Elizabeth Powell dau. of Mr. Michael Powell of Boston were married 23rd August by John Endecott Gov.
 John Morrell an Irishman & Lysbell Morrell an Irishwoman were married 31st August by John Endecott Gov.
 John Laughton & Johannah Mullings widdow were married 21st Sept. by Richard Bellingham Dep. Gov.
 Abraham Busby & Abigail Brisco widdow were married 23rd Sept. by John Endecott Gov.
 George Pearse & Mary Woodhouse dau. of Richard Woodhouse of Boston were married by Richard Bellingham Dep. Gov.
 Samuel Miles & Elizabeth Dowse dau. of Francis Dowse of Boston were married 16th Oct. by John Endecott Gov.
 Michael Lambert & Elinor Furnell widdow were married.
 Robert Portis & Alice Greenwood were married 3rd Nov. by Major Humphrey Atherton.
 Timothy Pratt & Deborah Cooper were married 9th Nov. by Major Atherton.
 Roger Wheeler & Mary Stone widdow were married 23rd Nov. by Major Humphrey Atherton.
 John Lewis & Alice Bishop widdow were married 22nd Nov. by Major Humphrey Atherton.

Joseph Cocke & Susanna Vpshall dau. of Nicholas Vpshall of Boston were married 10th Nov. by Mr. Tho. Danforth.

Henry Tewxbery & Martha Harvy widdow were married 10th Nov. by John Endecott Gov.

Nathaniel Hudson & Elizabeth Alford dau. of William Alford of Boston were married 1st Dec. by Mr. Tho. Danforth.

Samuel Smith & Susanna Read dau. of William Read of Boston were married 13th Dec. by John Endecott Gov.

William Norton & Susanna Mason dau. of Ralph Mason of Boston were married 14th Dec. by John Endecott Gov.

Daniel Turell & Mary Barrell widdow dau. of Elder William Colebron of Boston were married at Roxbury.

John Garretson & Alice Willey were married 5th Dec. by John Endecott Gov.

Mr. Antipas Boyce & Mrs. Hannah Hill dau. of Mr. Valentine Hill of Pascataque or Dover were married 24th Jan. by John Endecott Gov.

William Dennison of Pulling Point & Mary Parker were married 27th Oct. by Richard Bellingham Dep. Gov.

Edward Darby & Susanna Hooke were married 25th Jan. by Ri. Bellingham Dep. Gov.

John Matson & Mary Cotton dau. of Sargent William Cotton of Boston were married 7th March by Major Humphrey Atherton.

Thomas Woodward & Mary Guns were married 7th March by Major Humphrey Atherton.

Clement a negro servant to Mr. John Joyliffe & Mary a negro servant to the said Mr. Joyliffe were married.

David Cope & Obedience Topliffe dau. of Clement Topliffe of Dorchester were married 20th Feb. at Dorchester by Major Humphrey Atherton.

FIRST CHURCH.

Elizabeth of David Chapin of Sprinkfield	6 day	1 mo.
Peter of John Inglesby	13 day	1 mo.
James of Peter Oliver	20 day	1 mo.
Rebecca of Wm. Padye	3 day	2 mo.
Ann of John Chickley	24 day	2 mo.
Jonathan of Wm. Read	24 day	2 mo.
Ruth of Joan & Thos. Joy	1 day	3 mo.
Priscilla of Henry Messinger's wife	12 day	4 mo.
Josua of Henry Stevens	26 day	4 mo.
John of Edward Devotion	26 day	4 mo.
Elnathan of Mr. Waldin	10 day	5 mo.
Tho: of Josua Scottow	10 day	5 mo.
Jacob of Mrs. Sheaffe	24 day	5 mo.
William		
Isaac		
Jacob		
Elizabeth		
Sarah		
Rachel		
Sarah of Henry Powning	7 day	6 mo.
Tomisen of Thomas Scottow	15 day	6 mo.
Elizabeth of Gamaliel Phipeny's wife	15 day	6 mo.
Christopher of John Marshall	21 day	6 mo.
Benjamin of Joseph Rock	11 day	7 mo.
Thomas of Rebecca Winsor	9 day	8 mo.
Samuel of Constance & James Mattock	23 day	Oct.
Thomas		
Mary		
Sarah		
Anna		
Mary of Peter Duncan's wife	20 day	9 mo.
Anna of James Johnson	27 day	9 mo.
Nathaniel of Henry Bridgham	11 day	10 mo.

Mary of Hannah Manning	18 day 10 mo.
Huldah of William Davis	25 day 10 mo.
Samuel of John Peirce of Ch. of Wobourne	22 day 11 mo.
Samuel of George Orice	22 day 11 mo.
Benjamin of John Swett of Ch. of Newberry	29 day 11 mo.
William of William Phillips of Ch. of Charlestowne	5 day 12 mo.
Christopher of Christopher Clark's wife	19 day 12 mo.
Samuel of Amos Richisson's wife	19 day 12 mo.

1660.

TOWN.

Elizabeth of Alexander and Mary Adams born Oct. 1.
 John of John & Eliza. Aldin born Novem. 20.
 Martha of John and Hannah Andrewes born Decem. 5.
 Elizabeth of John & Joanna Baker born June 26.
 Elizabeth of Mr. Thomas & Elizabeth Brattle born Nov. 30.
 Samuel of Henry & Eliza. Bridgham born Jan. 17.
 William of Mr. James & Hannah Breeding born Oct. 26.
 Mary of John & Hannah Bateman born Sept. 4.
 Sarah of Mr. Thomas & Mary Broughton born June 9.
 Joseph of Henry & Elizabeth Blake born Sept. 2.
 Samuel of Roger & Sarah Burgesse born Nov. 17.
 Mary of Joseph & Ruth Belknap born Sept. 25.
 Sarah of Oulando & Sarah Bagly born Jan. 14.
 Elizabeth of John & Eliza. Brookine born May 26.
 Sarah of Abraham & Jane Browne born June 16.
 John of Edmund & Eliza. Browne born Oct. 9.
 John of John Junr. & Eliza. Blackleeche born Jan. 13.
 Elizabeth of Jonathan & Mary Balston born Sept. 18.
 James of James & Sarah Balston born Apr. 8.
 John of Capt. Thomas & Mary Breden born Apr. 24.
 Anna of Joseph & Mary Bastar born July 26.
 Daniel of John & Ann Buckman born Mar. 29.
 Ann of John & Susanna Cole born Mar. 7.
 Rebecca of Isaac & Rebecca Coussins born Apr. 2.
 Sarah of John & Eliza Conney born May 22.
 Hannah of William & Ann Cotton born Sept. 4.
 Sarah of Francis & Joan Crokum born Nov. 16.
 Thomas of William & Martha Demsdall born Nov. 16.
 Mary of James & Mary Dennis born Aug. 4.
 Edward of Edward & Hannah Davis born Nov. 22.
 Samuel of John & Mary Dawes born May 1.
 Mary of Samuel & Anna Davis of Rumney Marsh born May 21.
 Elizabeth of Thomas & Eliza. Dexter born Apr. 7.
 William of Richard & Jane Druse born May 1.
 Mehetable of George & Mary Dod born May 25.
 Elizabeth of Robert & Jemima Drew born July 22.
 Mary of Edward & Susanna Darby born Dec. 29.
 William of William & Sarah Eustis born Feb. 25.
 Hannah of Jacob & Mary Elliott born June 15.
 Sarah of Robert & Mary Field born Oct. 20.
 Theophilus of Theoph: & Hannah Frary born Dec. 4.
 John of Daniel & Sarah Fairefield born Oct. 28.
 Nathaniel of Emanuel & Christian Fryer born Dec. 9.
 Hannah of William & Rachel Griggs of Rumney Marsh born 12th March.
 John of John & Mary Gilbert born July 21.
 Israel of William & Eliza. Greenough born July 27.
 Joseph of Edward & Sarah Grant born Feb. 15.
 John of John & Mary Glover born Feb. 1.
 Miles of Nathaniell & Mary Greenwood born May 23.
 Martha of Zachariah & Phoebe Gillam born June 2.
 Edward of Edward & Joane Garretson born Sept. 22.

Hannah of Richard & Mary George born Jan. 21.
 Abigail of John & Abigail Hanniford born March 8.
 Rachel of Mr. Jeremiah & Esther Howchin born Dec. 16.
 Ebenezer of John & Persis Harrison born May 31.
 George of Nathaniell & Sarah Hunn born May 23.
 Deborah of Christopher & Anne Holland born Mar. 8.
 Jane of Philip & Susanna Harding born May 1.
 America of William & Mary House born Apr. 30.
 Susanna of William & Sarah Hasye born May 30.
 Rachel of Thomas & Rachel Harwood born Feb. 28.
 Timothy of William & Mary Ingram born July 2.
 Joanna of James & Joanna Ingles born Oct. 18.
 Sarah of Edmund & Eliza. Jackson born Sept. 24.
 Richard of John & Emm Jepson born June 14.
 Hannah of Mr. John & Anna Joyliffe born May 9.
 Nathaniel of Abraham & Betteris Joslin born July 4.
 John of John & Hannah Keene born Sept. 2.
 Edward of Joseph & Joanna Kellocke born Oct. 1.
 Mary of Richard & Johanna Knight born Feb. 13.
 Anna of Edward & Anna Lane born Oct. 5.
 John of John & Elizabeth Lowell born Apr. 7.
 Abigail of John & Sarah Langdon born Aug. 25.
 Mary & Martha Meiland daughters of ———
 Benjamin of John & Sarah Marshall born Feb. 15.
 Thomasin of John & Hannah Mirriam born Sept. 19.
 Sarah of Thomas & Sarah Moore born May 5.
 Jotham of John & Kathar. Maverick born Mar. 30.
 Abigail of Humphry & Mary Milam born Oct. 10.
 Sarah of Samuel & Thomasin Mayo born Dec. 19.
 Elizabeth of John & Elizabeth Morse born Jan. 22.
 Thomas of Joseph & Elizabeth Nash born Apr. 21.
 John of William & Susanna Norton born Aug. 22.
 Ruth of William & Frances Param born April 5.
 David of Philip & Rachel Phillips born 1st March.
 Mary of Ensign Henry & Mary Phillips born Nov. 28.
 Nicholas of Nicholas & Hannah Phillips born May 12.
 Sarah of Thomas & Eliza. Peeke born Jan. 13.
 Mary of George & Mary Pearse born June 20.
 Hannah of John & Ruth Pearse born June 30.
 Benjamin of James & Sarah Pemberton born Apr. 26.
 Thomas of Mr. Richard & Elizabeth Price born July 22.
 Jonathan of Edward & Elizabeth Page born July 31.
 Sarah of Mr. John & Sarah Paine born Aug. 14.
 William of John & Sarah Parker of Muddy River born Dec. 3.
 Timothy of Timothy & Deborah Pratt born Dec. 18.
 Timothy of Wm. & Ruth Read born Aug. 11.
 Mary of Nathaniell & Sarah Reynolds born Nov. 20.
 Sarah of John & Mary Rosse born May 21.
 Joseph of Richard & Luke Smith born May 2.
 John of Joseph & Elizabeth Souther born Sept. 5.
 Joseph of John & Ann Sawdy born Dec. 5.
 Ruth of Anthony & Alice Shaw born Dec. 10.
 Elizabeth of Mr. Henry & Ellener Shrimpton born Apr. 11.
 Richard of Richard & Joice Staines born Dec. 3.
 John of John & Sarah Skate born Apr. 25.
 Thomasin of Thomas & Sarah Scottow born Aug. 18.
 Lydia of Anthony & Christian Stoddard born Mar. 27.
 Thomasin of John & Thomasin Scarlet born May 18.
 Susanna of Sampson & Abigail Shore born May 20.
 Ebenezer of Capt. Thomas & Mary Savage born May 22.
 Nicholas of Pilgrim & Miriam Simpkins born Oct. 22.
 John of John Jr. & Mary Sunderland born Jan. 22.
 Abigail of David & Abigail Saywell born Feb. 4.
 Lydia of Daniel & Lydia Turell born Nov. 30.

Hannah of Richard & Grace Trevis born May 28.
 Stephen of Daniel & Ester Travis born Sept. 18.
 Mary of Thomas & Hannah Tylee born Apr. 10.
 Richard of Richard & Martha Twells born May 16.
 Rebecca of John & Mary Tuttell born June 17.
 Elizabeth of William & Grace Toy born June 25.
 Elizabeth of Bartholmew & Damaris Threenedle born June 16.
 Elizabeth of Henry & Martha Tereberry born Aug. 22.
 James of Robert & Sarah Taylor born Jan. 17.
 John of Richard & Rebecca Waite born Feb. 9.
 Thomas of Thomas & Abigail Wiborne born April 2.
 Esther of Capt. Richard & Anne Waldren born Dec. 1.
 Prudence of Ezekiel & Anne Woodward born Apr. 4.
 Abigail of William & Eliza. Wardell born Apr. 24.
 Rebecca of Philip & Mary Wharton born May 5.
 Hannah of Robert & Sarah Ward born May 6.
 Margaret of Mr. Dean & Sarah Winthrop born July 25.
 John of John & Josabeth Wing born Aug. 14.
 Margaret of Mr. John & Margt. Woodmansey born Oct. 17.

Capt. Thomas Thornell died 11th March.
 Anna of John & Mary Anderson died 12th March.
 Elizabeth of Thomas and Elizabeth Barlow deceased the 17th of Aprill.
 Josiah Robinson apprentice to Mr. Joseph Rocke deceased the 17th of Aprill.
 Christopher Smith of Plymouth in England Carpenter of the ship Walsingham deceased the 10th of Aprill.
 Abigaile wife of Thomas Wiborne deceased the 24th of Aprill.
 Anne Norgrove widow deceased the 4th of Aprill.
 Rebecca dau. of Phillip Wharton died the 10th of May.
 Joseph of Joseph and Elizabeth Soper deceased the 28th of Aprill.
 Thomas Rawlins deceased the 15th of March.
 William of William and Hannah Ballantine deceased the 12th of May.
 Nathaniell of Henry and Elizabeth Bridgham deceased the first of June.
 George Griggs deceased the 23d of June.
 Richard Sherman deceased the 30th of May.
 Mary dau. of George Pearse deceased the 10th of July.
 Ebenezer of John and Persis Harrison deceased the 11th of July.
 Mary of John and Mary Kneeland died the 19th of October.
 John of Theophilus and Hannah Frary deceased the 31st of July.
 Hannah of Captain James and Abigail Johnson deceased the 3d of August.
 Simeon of William and Elizabeth Holloway deceased the 17th of August.
 Mr. William Paine deceased the 10th of October.
 John of John and Josabeth Wing deceased the 26th of August.
 Israel of William and Elizabeth Greenough deceased the 5th of September.
 Joseph of Mr. Joseph and Elizabeth Rocke deceased the 10th of September.
 Samuell Bitfield deceased the 10th of September.
 Mr. Henry Webb deceased the 7th of September.
 William of Thomas and Hannah Hull deceased the 27th of September.
 Sarah Goodier deceased the 19th of November.
 Elizabeth of Jonathan and Mary Bolston died the 26th of September.
 Johanna of James and Johanna English deceased the 17th of November.
 Miriam wife of Pilgrim Simpkins deceased the 10th of November.
 Thomas of William and Martha Demsdall deceased the 13th of January.
 Margaret Woodmansey wife of Mr. John Woodmansey deceased the 29th of December.
 Charity White deceased the 28th of January.
 Elizabeth of George and Hannah Manning deceased the 4th of February.
 John of John and Susanna Cole deceased the 22nd of January.
 George Broome died the 24th of February.
 Daniell of Daniell Stone deceased the 27th of February.
 Michaell of Michaell and Susanna Martine deceased the 14th of February.

- John Aldine & Elizabeth Everill, widow, relict of Abiell Everill, deceased, were married 1st Aprill by John Endecott Gov.
- Mr. Pelatiah Glover & Hannah Cullick were married 20th May.
- Edward Garreson & Joan Pullen were married 29th August.
- Mr. Samuella Coale & Anne Keayne widow were married 16th October by Richard Bellingham Dep. Gov.
- Joseph Lowell & Abigail, daughter of ——— Procter, of Dorchester, were married 8th March by Major Humphrey Atherton.
- Daniell Henricke & Mary Stockbridge widow were married 8th April by John Endecott Gov.
- Mr. Abraham Browne & Rebecca Usher daughter of Mr. Hezekiah Usher of Boston were married first May.
- Henry Adams & Mary Pitty daughter of William Pitty of Weymouth were married 10th May by Mr. Richard Russell Treasurer.
- Isaac Willy & Francis Burcham daughter of Edward Burcham of Linne were married 8th June by Major Humphrey Atherton.
- Samuell Moore & Abigail Hawkins daughter of Captain Thomas Hawkins deceased were married 13th May by Richard Russell Treasurer.
- Clement Salmon & Johanna Riland were married 13 June by John Endecott Gov.
- William Williams & Johanna Linn were married 19th July by Richard Bellingham Dep. Gov.
- Peter Warren & Sarah Tucker daughter of Robert Tucker living within the limits of Dorchester were married first August by Major Atherton.
- Richard Iggleden & Ann Prince were married 19th July by Captain Daniell Gookin.
- David Saywell & Abigail Buttolph daughter of Thomas Buttolph were married 15th August by Richard Bellingham Dep. Gov.
- Samuell Emmons & Mary Scott daughter of Robert Scott deceased were married 16th August by Richard Bellingham Dep. Gov.
- John Parker & Mary Faifeild daughter of Daniell Faifeild of Boston were married 20th August by John Endecott Gov.
- Thomas Matson & Mary Read widow were married 14th August by Mr. Thomas Danforth.
- Richard Raser & Exercise Blackleeche daughter of Mr. John Blackleeche of Boston were married 24th August by Mr. Richard Russell of Charlestown.
- Jasper Frost & Elizabeth Wakefeild daughter of John Wakefeild of Boston were married 20th August by John Endecott Gov.
- John Hincksman & Elizabeth Emmons daughter of Thomas Emmons of Boston were married 10th August by Major Humphrey Atherton.
- Eliphalet Het & Ann Douglas daughter of Henry Douglas of Boston were married first September by Richard Bellingham Dep. Gov.
- Thomas Buttolph & Mary Baxter daughter of Nicholas Baxter of Boston were married 5th September by Richard Bellingham Dep. Gov.
- John Veren & Mary Wiseman daughter of James Wiseman of Boston were married 12th June by John Endecott Gov.
- David Carwithen & Francis Oldam widow were married 22nd September by Richard Bellingham Dep. Gov.
- Mr. Francis Hooke & Mary Palsgrave widow were married 20th September by Major Humphrey Atherton.
- Mr. Robert Gibbs & Elizabeth Sheaffe daughter of Mr. Jacob Sheafe deceased were married 7th September by Major Humphrey Atherton.
- Myles Standish & Sarah Winslow daughter of Mr. John Winslow were married 19th July by Major Humphrey Atherton.
- Richard Martine & Elizabeth Gay of Dedham daughter of John Gay were married at Salem by Major Hawthorne.
- William Greenow & Ruth Swift the daughter of Thomas Swift of Dorchester were married 10th October.
- Benjamin Gillam & Hannah Savage the daughter of Captain Thomas Savage of Boston were married 26th October by Major Humphrey Atherton.
- John Faifeweather & Sarah Turner daughter of Robert Turner of Boston were married 15th November by John Endecott Gov.
- Edmund Jackson & Elizabeth Pilkenton were married 27th October by Mr. Thomas Danforth.

Thomas Reape & Judith Rachell widow were married 30th November by John Endecott Gov.
 Daniell Crocker & Sarah Balden were married 30th November by Richard Bellingham Dep. Gov.
 John Benham & Margery Alcock widow were married 16th November by John Endecott Gov.
 Richard Mason & Sarah Messinger the daughter of Henry Messinger of Boston were married 20th November by John Endecott Gov.
 Clement Short & Faith Munt the daughter of Thomas Munt of Boston were married 21st November by John Endecott Gov.
 Edward Loyd & Mary Wheelwright daughter of Mr. John Wheelwright late of Hampton were married 4th December by John Endecott Gov.
 Samuell Mavericke & Rebecca Wheelwright daughter of Mr. John Wheelwright late of Hampton were married by Major Humphrey Atherton.
 Benjamine Thurston & Elisha Walker daughter of Robert Walker of Boston were married 12th December by Richard Bellingham Dep. Gov.
 John Tomline & Sarah Barnes daughter of Mathew Barnes of Boston were married 26th December by John Endecott Gov.
 John Sowther & Hannah Read were married 11th January by Richard Bellingham Dep. Gov.

FIRST CHURCH.

Moses of Moses & Eunice Mavericke of Ch. of Salem	4 day	1 mo.
Mehetabel of John Sweet	4 day	1 mo.
Mary of Mr. Atwater of Newhaven	11 day	1 mo.
Ann of Ann & Rice Joanes	11 day	1 mo.
Lydia of Anthony Stoddard	1 day	2 mo.
Anna of William Griges	8 day	2 mo.
Mehetabel } of Edmond Jacklin	8 day	2 mo.
Mary { Sarah of Henry Shrimpton aged 11 years	15 day	2 mo.
{ Abigail of Henry Shrimpton aged 2 years	15 day	2 mo.
{ Bethiah of Henry Shrimpton aged 1 year	15 day	2 mo.
{ Elizabeth of Henry Shrimpton aged 5 days	15 day	2 mo.
Tomisen of Tomisen & John Scarlet	20 day	3 mo.
Ebenezer of Tho : Savage	27 day	3 mo.
Hannah of Sampson Shore	27 day	3 mo.
Ebenezer of John Harisson	3 day	4 mo.
Hannah of Jacob Eliot	10 day	9 mo.
Joseph of James Pemerton	24 day	10 mo.
Elizabeth of Wm Toy	1 day	5 mo.
Susan of William Hassy's wife	14	July.
Mary of sister Dinnis	5 day	6 mo.
Timothy of Wm Read	12 day	6 mo.
Tomisen of Tho. Scottow	19 day	6 mo.
Margaret of Dean Winthorp's wife	2 day	7 mo.
Mercy of Mr. Bradford of Plymoth	2 day	7 mo.
Hannah of William Cotton	9 day	7 mo.
Joseph of Henry Blauge	9 day	7 mo.
Mary of John Bateman's wife	9 day	7 mo.
Tomisen of John Meriam	23 day	7 mo.
Mary of Edmond Jackson	30 day	7 mo.
Elizabeth of Alexander Adams	30 day	7 mo.
Francis of Francis Smyth's wife	18	Nov.
Tho : of William Dinsdale	18	Nov.
Edward of Edward Davis	25	Nov.
Elizabeth of Tho : Bratle	2 day	10 mo.
Hester of Capt Weldin	2 day	10 mo.
Mary of Henry Phillips	2 day	10 mo.
Lidia of Daniel Turand's wife	2 day	10 mo.
Theophilus of Theophilus Frairy	9 day	10 mo.
Elijah of Mordeca Nichols' wife	9 day	10 mo.
Elizabeth of Crispus Brewer's wife	9 day	10 mo.

Rachel of Mr. Howchin	16 day 10 mo.
Samuel of Henry Bridgham	20 day 11 mo.
Sarah of sister Peck	20 day 11 mo.
John of Richard Wayt	10 day 12 mo.
Ruth of William Davis	17 day 12 mo.
Benjamin of John Marshall	17 day 12 mo.

1661.

TOWN.

Elizabeth of Nathaniel and Mary Adams born Mar. 2.
 William of Henry and Mary Adams born May 30.
 Benjamin of Hope & Rachel Allen born Jan. 10.
 Edward of Edward & Martha Allen born Sept. 21.
 Mary of John & Martha Amey born Oct. 10.
 Mary of Angola & Eliza. (negros) born Oct. 11.
 John of John & Mary Bowhanon born Aug. 23.
 Hannah of John & Joanna Baker born Nov. 4.
 Martha of Thomas & Leah Baker born Sept. 3.
 Nathaniel of William & Pilgrim Baker born May 13.
 Susanna of Edward & Patience Blake born July 20.
 Benjamin of William & Hannah Ballantine born July 22.
 Isaac of Stephen & Jane Butler born Oct. 9.
 Mary of Orlando & Sarah Bagly born Jan. 5.
 Hezekiah of Mr. Abraham & Rebecca Browne born Aug. 22.
 Jonathan of Josiah & Ranus Belcher born Sept 1.
 Mary of Thomas & Abigail Bill born Aug. 15.
 Zakeus of Capt. Thomas & Mary Breden born July 1.
 Anna of Henry & Frances Boyen born May 4.
 Elizabeth of Richard & Martha Bowden born May 18.
 Elizabeth of Alexander & Margaret Bogle born Apr. 2.
 Ralph of Ralph & Ann Benning born June 24.
 Thomas of Thomas Jr. & Mary Buttolph born Oct. 5.
 Mary of Samuel & Mary Bedwell born Sept. 18.
 Benjamin of Richard & Eliza. Barnard born Jan. 6.
 Antipas of Antipas & Hannah Boyce born Feb. 8.
 Andrew of Andrew & Elizabeth Cload born Apr. 28.
 Hannah of David & Lydia Chappine born Oct. 23.
 Samuel of John & Ann Checkley born Nov. 26.
 David of David & Frances Carwithen born June 1.
 Daniel of Christopher & Rebecca Clarke born Feb. 10.
 Richard of Richard & Mary Collens born June 18.
 David of David & Obedience Copp born Dec. 8.
 Mary of James & Mary Dennis born June 5.
 Sarah of Samuel & Sarah Davis born Sept. 11.
 Elizabeth of John & Mary Dawes born June 24.
 Jonathan of William & Susanna Dawes born Nov. 3.
 Joseph of William & Martha Demsdall born Nov. 21.
 Lydia of Edward & Sarah Ellis born Nov. 17.
 Mary of Samuel & Mary Emons born Nov. 18.
 Sarah of Thomas & Martha Fitch born June 14.
 Theophilus of Theoph: & Hannah Frary born Jan. 30.
 Ruth of John & Eliza. Fernside born Aug. 20.
 David of David & Mary Faulkner born June 7.
 Samuel of Samuel & Anne Flack born Oct. 18.
 Thomas of John & Sarah Faireweather born Sept. 5.
 Joseph of Nathaniel & Margaret Gallop born Mar. 20.
 Mary of John & Susanna Griffine born Jan. 21.
 Samuel of William & Eliza: Greenough born Mar. 3.
 Richard of Richard & Lydia Garret born Nov. 3.
 Bartholmew of Thomas & Frances Gold born Oct. 27.
 Susanna of Nathaniell & Mary Green born Apr. 29.
 Zachariah of Zachariah & Phoebe Gillam born Nov. 4.

Thomas of Thomas & Eliza. Gwine born Nov. 3.
 Susanna of Charles & Eunice Gleden born Nov. 16.
 Samuel of James & Mary Hudson born Mar. 23.
 Mary of Joseph & Frances How born Mar. 17.
 Abraham of John & Persis Harrison born Sept. 3.
 Mary of Thomas & Hannah Hull born Aug. 22.
 Samuel of Ensign John & Judith Hull born Aug. 1.
 Thomas of Richard & Mary Hicks born Feb. 23.
 Hannah of William & Mary Hunter born Nov. 22.
 Elizabeth of Ezekiel & Eliza. Hamlin born Oct. 24.
 Ephraim of Samuel & Isabel Howard born Feb. 23.
 Solomon } of David & Katharine Hitchbone born Dec. 14.
 David } of David & Katharine Hitchbone born Dec. 14.
 Abraham of William & Mary Hambleton born Dec. 23.
 Martha of Edmund & Eliza. Jackson born Feb. 11.
 John of John & Emm Jepson born May 8.
 Hannah of Capt. James & Abigail Johnson born June 12.
 Samuel of David & Elizabeth Kelly born Nov. 30.
 John of Thomas & Susanna Kelton born Aug. 15.
 Samuel of John & Alice Lewes born Jan. 18.
 ——— son of John & Hannah Lowell born ———
 Edward of Mr. Thomas & Elizabeth Lake born June 28.
 Elizabeth of William & Mary Lane born Feb. 3.
 Edward of Mr. Edward & Hannah Lane born Feb. 20.
 Joseph of Joseph & Abigail Lowell born Aug. 1.
 Lydia of Jeremiah & Sarah Murrell born Oct. 14.
 Mary of John & Ruth Marshall born Jan. 2.
 John of Robert & Mary Marshall born Jan. 7.
 Elizabeth of John & Eliza. Megdaniel born Sept. 3.
 Elizabeth of George & Hannah Manning born Oct. 13.
 Mary of Samuel & Abigail Moore born May 2.
 Sarah of Richard & Sarah Mason born Sept. 3.
 David of Arthur & Joanna Mason born Oct. 24.
 Mary of Samuel & Rebecca Mavericke born Oct. 2.
 John of Richard & Elizabeth Martine born Oct. 2.
 Margaret of Dorman & Margt. Mahoone born June 3.
 Mary of Robert & Catharine Nanny born June 22.
 Elizabeth of Joshua & Elizabeth Nash born Feb. 17.
 Abigail of Coronell Peter & Sarah Oliver born Jan. 1.
 Daniel of Henry & Eliza. Powning born Aug. 27.
 Abigail of Nicholas & Hannah Phillips born Feb. 20.
 Elizabeth of Zechariah & Eliza. Phillips born June 29.
 Ebenezer of William & Esther Pearse born Mar. 16.
 George of George & Mary Pearse born Jan. 27.
 Mary of John & Mary Parker born May 20.
 Mary of Peter & Mary Pue born June 17.
 James of James & Mary Penniman born Sept. 27.
 John of John & Susanna Rainsford born Mar. 5.
 Elizabeth of Robert & Mary Right born July 9.
 John of George & Mary Robinson born ———.
 William of William & Alice Russell born Apr. 16.
 Lydia of Mr. Joseph & Elizabeth Rocke born Apr. 21.
 Samuel of Samuel & Margaret Rucke born Oct. 4.
 Jonathan of Jonathan & Mary Rainsford born July 26.
 John of Thomas & Judith Reap born Sept. 2.
 Joseph of Richard & Exercise Rawser born Oct. 2.
 John of William & Hopestill Shute born Mar. 7.
 Joseph of Thomas & Sarah Stevens born April 17.
 Elizabeth of Nicholas & Hannah Stone born Sept. 25.
 Elizabeth of Thomas & Anne Saxton born June 8.
 Sarah of Robert & Eliza. Sanford born Nov. 23.
 Samuel of Samuel & Naomi Sherman born Oct. 3.
 Sarah of William & Eliza. Sumner born Feb. 3.
 Anna of John & Phillip Snell born Jan. 2.

Benjamin of John & Eliza. Studley born May 23.
 Joseph of Mr. Anthony & Christian Stoddard born Dec. 1.
 John of Capt. Thomas & Mary Savage born Aug. 15.
 Abigail of David & Abigail Saywell born Sept. 12.
 Comfort of John & Martha Starre born Feb. 4.
 Christian of John & Sarah Tuckerman born July 8.
 Hannah of Daniel & Esther Travis born Jan. 5.
 Mary of William & Rebecca Thirrell born Apr. 6.
 John of John & Sarah Tomline born Nov. 14.
 Elizabeth of Richard & Elizabeth Tout born Dec. 4.
 Samuel of Samuel & Abigail Towne born July 12.
 John of John & Mary Verrin born July 11.
 John of Lyonell & Elinor Wheatly born Oct. 6.
 Margaret of Edward & Eliza. Wanton born Aug. 13.
 Sarah of Sergt. Richard & Frances Woodde born May 21.
 Mary of Mr. Thomas & Mary Walker born Aug. 9.
 Hannah of John & Mary Williams born Apr. 27.
 Thomas of Thomas & Anne Williams born Mar. 29.
 Sarah of Thomas & Eliza. Watkins born Nov. 7.
 Thomas of Thomas & Mary Webster born Jan. 11.
 John of Edward & Sarah Winslow born June 18.
 Francis Hopestill* dau. of Richard & Sarah Woodhouse born Mar. 8.
 John of Peter & Sarah Warren born Sept. 8.
 Thomas of Thomas & Naomi Wells born Dec. 4.
 Mary of Nathaniel & Hannah Wilson of Muddy River born May 22.

Mr. Ralph Smith Pastor of the Church of Plymouth died the first of March.
 John of John and Mary Glover died the 19th of Aprill.
 Thomas of Thomas and Susanna Bumstead deceased the 3d of May.
 Thomas of Thomas and Abigail Wiborne deceased the 11th of May.
 Seargent Nathaniell Williams deceased the 23d of Aprill.
 Thomas of Thomas and Mary Read deceased the 11th of May.
 Tabytha wife of Mathew Abday deceased——.
 Joan Coffine deceased the 30th of May.
 John of Edmund and Martha Allen deceased the 29th of Aprill.
 Dorman Mahoon deceased the 2nd of Aprill.
 Ann dau. of John Checkley died the 20th of June.
 Susanna of Samson and Abigail Shore deceased the 22nd of June.
 Ebenezer of Richard and Tomasin Collicott deceased the 24th of June.
 Anne wife of Thomas Saxton deceased the 23d of June.
 Benjamine of Mr. Joseph and Elizabeth Rocke deceased the 20th of June.
 Anne of Mr. Edward and Anna Lane deceased the 27th of June.
 Mercy of Richard and Johanna Knight deceased the 27th of July.
 Nathaniell of —— and Sarah Bucknell deceased the 22d of July.
 Samuell of Symon and Christian Roberts deceased the 27th of July.
 Ruth of William and Francis Param deceased the 4th of July.
 Thomas of Joshua and Elizabeth Nash deceased first of July.
 Mary of Robert and Mary Stroud deceased the 30th of June.
 Mary of Zechariah and Phebe Gillam died the 14th of August.
 Zechariah of Jeremiah and Sarah Fitch deceased the 13th of August.
 Martha daughter of Robert Bradford deceased the 13th of August.
 Sarah of Richard and Francis Woodee deceased the 23d of August.
 John of Captain Thomas and Mary Savage deceased the 23d of August.
 Seargent Evan Thomas deceased the 25th of August.
 Abigail of William and Elizabeth Wardell died the 23d of August.
 Edward of Mr. Thomas and Mary Lake deceased the 27th of August.
 Nicholas of Nicholas and Hannah Phillips deceased the 18th of August.
 Elizabeth of Samuell and Constant Mattocke deceased the 3d day of September.
 Hannah of Mr. John and Hannah Paine deceased the 13th of September.
 Arabella of Mr. John and Mary Palsgrave deceased the 9th of September.
 John of John and Sarah Stone deceased the 12th of September.

*This is plainly so written in the oldest MS., but in the second MS. the double-named daughter is changed to twin sons, probably with reason. — W. S. A.

Robert Nash deceased the 13th of September.
 Johanna of Richard and Johanna Knight deceased the 23d of September.
 John of John and Sarah Warren deceased the 19th of September.
 John Pearse died the 17th of September.
 Mary of Madit and Joan Ings deceased the 5th of October.
 Ephraim of Thomas Robinson deceased the 22nd of September.
 Sarah of Richard and Sarah Mason deceased the 9th of September.
 Sarah of Orlando and Sarah Bagly deceased the 30th of September.
 Benjamin of James and Sarah Pemberton deceased the 29th of September.
 William of William and Alice Russell deceased the 29th of August.
 Sarah of Robert and Mary Feild deceased the 30th of September.
 Thomas Snelling a ship-carpenter dying intestate living at Dartmouth in Eng-
 the 16th of October.
 Elizabeth Habell deceased the 31st of August.
 James Davis seaman deceased the 17th of October.
 Nicholas Edwards a stranger living at Barbadoes near Spixes Bay deceased
 the 22nd of October.
 William of Richard and Jane Drus deceased the 25th of July.
 Mary wife of Thomas Robinson deceased the 26th of October.
 Elizabeth of Francis and Mary Hudson deceased the 23rd of October.
 Margery Elliott deceased the 30th of October.
 Thomas of Thomas Jr. and Mary Buttolph deceased the 30th of October.
 Thomas Barlow deceased the 23rd of October.
 Temperance daughter of John and Susanna Sweete deceased the 28th of
 November.
 James Sanford deceased the 2nd of November.
 John of John and Mary Bowhannon deceased the 14th of November.
 Nathaniell Wales senior deceased the 4th of December.
 Johanna wife of Thomas Ashly deceased the 27th of December.
 Roger Wheeler deceased the 7th of December.
 George Pearse deceased the 7th of December.
 Hopestill daughter of Thomas Bill deceased the 28th of November.
 Anne wife of William Munnings deceased the 4th of December.
 John of John and Martha Saffine deceased the 11th of December.
 Stephen of Robert and Elizabeth Meeres deceased the 10th of December.
 Cecile wife of William Brisco deceased the 9th of December.
 William of Samuella and Mary Gallop deceased the 28th of November.
 Jane Wheeler deceased the 27th of December.
 Solomon and David twins of David and Katherine Hitchbone deceased the 19th
 of December.
 William of William and Elizabeth Pearse deceased the 4th of January.
 Rice Jones deceased the 3d of January.
 Isabell wife of Nathaniell Wales deceased the 18th of December.
 John Paddy deceased the 8th of January.
 Joseph of Mr. Anthony and Christian Stoddard deceased the 27th of December.
 Elizabeth of Richard and Dorothy Graves deceased the 2d of January.
 Elizabeth of John and Anne Cleare deceased the 23rd of Jan'y.
 Thomas of the said John and Elizabeth Cleare deceased the 31st of January.
 Samuella of Thomas Robinson deceased the 16th of January.
 Margaret wife of Alexander Bogle deceased the 22nd of February.
 Mary of Thomas and Hannah Hull deceased the 19th of March.

John Reylean an Irishman & Margaret Brene an Irishwoman were married
 15th March by John Endecott Governor.
 Habbiah Savage & Hannah Ting daughter of Mr. Edward Ting of Boston
 were married 8th May by John Endecott Governor.
 John Wampony an Indian & Anne Praske were married 21st May by Major
 Humphrey Atherton.
 Mr. John Freake & Elizabeth Clarke daughter of Captain Thomas Clarke of
 Boston were married 28th May by Major Humphrey Atherton.
 Edward Howard & Hannah Hawkins daughter of Thomas Hawkins of Boston
 were married 7th June by Mr. Thomas Danforth of Cambridge.
 Joseph Benjamine of Tastable & Jemima Lumbard daughter of the late
 Thomas Lumbard deceased were married 10th June by Richard Belling-
 ham Dep. Gov.

William Makepeace & Ann Johnson were married 23rd May by Major Humphrey Atherton.
 John Preston & Susanna Read widow were married 28th May by Mr. Thomas Danforth of Cambridge.
 Samuell Browne & Mary Mattocke daughter of James Mattocke of Boston were married 9th July by John Endecott Governor.
 Christopher Mosse & Prudence Woodward daughter of Nathaniell Woodward of Boston were married.
 Bryan Morfrey an Irishman & Margaret Mayhoone widow were married 20th July by John Endecott Governor.
 John Cann & Ester Read daughter of William Read of Boston were married 30th July.
 Josiah Cooper & Wayte-a-while Makepeace of Boston were married 13th September by John Endecott Governor.
 William Clarke now resident in Boston & Martha Farr daughter of George Farr of Lynne were married 18th September by Mr. Richard Russell.
 John Jarvis & Rebecca Parkman daughter of Elias Parkman of Boston were married 18th September by Richard Bellingham Dep. Gov.
 Benjamin Richards & Hannah Hudson daughter of Lieutenant William Hudson of Boston were married 10th October by Mr. Richard Russell.
 Gilbert Dallison & Margaret Story were married 24th October by Mr. Richard Russell.
 James Greene & Rebecca Jones daughter of Thomas Jones of Dorchester were married 19th November by John Endecott Governor.
 John Searle & Katherine Warner widow were married 26th November by John Endecott Governor.
 Pilgrim Sympkins & Katherine Richardson were married 27th November by Richard Bellingham Dep. Gov.
 John Drummond & Lydia Hallet widow were married 27th November by John Endecott Governor.
 John Sparke & Mary Sennet daughter of Walter Sennet of Boston were married 26th November by John Endecott Governor.
 John Curtis & Rebecca Wheeler daughter of the late Thomas Wheeler of Boston deceased were married 26th December.
 John Butcher & Mary Deane were married 30th January by Mr. Thomas Danforth of Cambridge.
 John Walley & Elizabeth Wing daughter of the late Robert Wing deceased were married 3d April.
 Thomas Ashly & Hannah Broome widow were married the last of January by Mr. Thomas Danforth of Cambridge.
 Mr. Henry Shrimpton & Mrs. Mary Fenn widow were married 27th February by Richard Bellingham Dep. Gov.
 Peter Aspinwall of Muddy River & Remember Palfrey of Redding were married 12th February by John Endecott Governor.
 John Combes & Elizabeth Barlow relict of Thomas Barlow were married 24th February by Captain Mason of Watertowne.

FIRST CHURCH.

Joseph of Naomi Wells	3 day	1 mo.
Elizabeth of Elizabeth Brookin	3 day	1 mo.
John } of John Blackleach	10 day	1 mo.
Elizabeth } of John Blackleach	10 day	1 mo.
Sarah of Joseph How	24 day	1 mo.
Josua of Sister Kibby	31 day	1 mo.
John of Ann & Wm Ballantin	14 day	2 mo.
David of Ann & William Ballantin	14 day	2 mo.
Elizabeth of Ann & William Ballantin	14 day	2 mo.
Lydia of Mr. Locke	28 day	2 mo.
Mary of Mary & James Hudson	28 day	2 mo.
Thomas of Leah & Tho : Baker	28 day	2 mo.
John of Leah & Tho : Baker	28 day	2 mo.
Rachel of Leah & Tho : Baker	28 day	2 mo.
Rachel of Tho : Harwood's wife	5 day	3 mo.

Sarah of Richard Woody of Ch. of Roxberry	26 day	3 mo.
Hannah of John Andrews' wife	2 day	4 mo.
Mary of John Andrews' wife	2 day	4 mo.
Martha of John Andrews' wife	2 day	4 mo.
Sarah Burgisse	16 day	4 mo.
William of Sarah Burgisse	16 day	4 mo.
Samuel of Sarah Burgisse	16 day	4 mo.
Hannah of James Johnson	16 day	4 mo.
Elizabeth of Thomas Saxton's wife	7 day	5 mo.
John of Edward Rawson	14 day	5 mo.
Thomas of Elizabeth & William Spowell	21 day	5 mo.
William of Elizabeth & William Spowell	21 day	5 mo.
Mehetabel of Elizabeth & William Spowell	21 day	5 mo.
Samuel of John Hull	4 day	6 mo.
John of Capt. Savag	18 day	6 mo.
Daniel of Henry Powning	1 day	7 mo.
Abraham of Harrison	8 day	7 mo.
Martha of Leah Baker	8 day	7 mo.
William of Hester & William Peirce	15 day	7 mo.
Nathaniel of Hester & William Peirce	15 day	7 mo.
Moses of Hester & William Peirce	15 day	7 mo.
Ebenezer of Hester & William Peirce	15 day	7 mo.
Hester of Hester & William Peirce	15 day	7 mo.
Ruth of Mr. Firniside	29 day	7 mo.
Elizabeth of George Manning	20 day	8 mo.
Hannah of David Chapin	3 day	9 mo.
Jonathan of Wm. Dawes	10 day	9 mo.
Lydia of William Ellis' wife	24 day	9 mo.
Jonathan of William Dinsdale	24 day	9 mo.
Sarah of Robert Sanford	24 day	9 mo.
Benjamin of John Chickly	1 day	10 mo.
Joseph of Anthony Stoddard	8 day	10 mo.
Thomas of Ann & Tho: Wells	8 day	10 mo.
Peter of John Looell	26 day	11 mo.
Daniel of Christopher Clark	16 day	12 mo.
Martha of Edmond Jackson	16 day	12 mo.

1662.

TOWN.

Elizabeth of John & Eliza. Alden born May 9.
 John of Josua & Mary Atwater born Aug. 14.
 John of John & Hannah Andrewes born Sept. 20.
 Samuel of Peter & Remembrance Aspinwall of Muddy River born Nov. 10.
 John of John & Eliza. Brookin born March 13.
 James of Thomas & Abigail Bill born Feb. 28.
 William of Mr. Thomas & Elizabeth Brattle born Nov. 22.
 Nathaniel of Henry & Eliza. Bridgham born Apr. 2.
 James of James & Hannah Breeding born Apr. 1.
 Sarah of Roger & Sarah Burgesse born Jan. 28.
 Hannah of William & Hannah Ballentine born Nov. 15.
 James of Samuel & Mary Browne born May 2.
 Robert of Jonathan & Mary Bolston born Dec. 3.
 Abigail of James & Sarah Balston born Aug. 20.
 Sarah of John & Tabitha Blower born July 1.
 Jane of John & Jane Bushnell born Dec. 18.
 Thomas of Thomas & Mary Buttolph born Feb. 5.
 William of Andrew & Elizabeth Cload born Feb. 16.
 Joseph of John & Eliza. Conney born Apr. 27.
 Hannah of Joseph & Hannah Chandler born Sept. 8.
 Elizabeth of John & Elizabeth Combes born Nov. 30.
 Ruth of Capt. William & Huldah Davis born Feb. 12.

Joseph of Joseph & Eliza. Davis born Jan. 26.
 Hannah of John & Returne Davis born Jan. 24.
 Samuel of John & Lydia Drummond born Aug. 23.
 Elizabeth of Bernard & Eliza. Engles born July 15.
 Martha of Obadiah & Alice Emons born Oct. 23.
 Joseph of William & Sarah Eastis born Nov. 20.
 Jacob of Jacob & Mary Elliott born Nov. 16.
 Thomas of Thomas & Jane Edsell born Dec. 14.
 David of John & Susanna Farnam born Oct. 30.
 Zachariah of Jeremiah & Sarah Fitch born Feb. 19.
 Deborah of Jeremiah & Sarah Fitch born Nov. 5.
 Daniel of Robert & Mary Field born Sept. 6.
 Abigail of Theoph: & Hannah Frarye born Sept. 5.
 Solomon of Samuel & Anne Flacke born Dec. 3.
 Daniel of Daniel & Sarah Fairfield born Sept. 18.
 Penelope of John & Sarah Faireweather born Jan. 15.
 Mary of Mr. John & Eliza. Freeke born Mar. 25.
 Sarah of Matthew & Mary Grosse born Aug. 23.
 Mary of William & Ruth Greenow born Nov. 28.
 Rebecca of William & Rachel Griggs of Rumney Marsh born Apr. 3.
 Mary of John & Mary Glover born Apr. 16.
 Elizabeth of James & Rebecca Greene born Nov. 14.
 Samuel of Nathaniell & Mary Greenwood born Sept. 24.
 Hannah of Benja. & Hannah Gillam born Apr. 27.
 John of John & Hazelpannah Gee born May 27.
 Ebenezer of James & Mary Hudson born Mar. 4.
 Matthew of Edward & Esther Howard born Mar. 15.
 Samuel of Eliphalet & Ann Hett born May 13.
 ——— dau. of John and Persis Harrison born Feb. 2.
 Thomas of Thomas & Hannah Hull born Jan. 16.
 Samuel of Nathaniell & Sarah Hunn born Sept. 13.
 Mary of Christopher & Anne Holland born Feb. 8.
 Benjamin of Thomas & Rachel Harwood born Feb. 4.
 Margaret of Jarret & Rebecca Ingram born Jan. 17.
 John of John & Jane Jackson born Feb. 24.
 Mary of Arthur & Jane Kinde born Apr. 27.
 Richard of Richard & Joanna Knight born Apr. 30.
 Joseph of John & Alice Lewis born Feb. 4.
 Edward of Capt. Thomas & Mary Lake born July 15.
 Elizabeth of Mr. Simon & Hannah Lynde born Mar. 25.
 Susanna of Thomas & Mary Lambert born Feb. 28.
 Patience of John & Elizabeth Lowell born Oct. 7.
 Hannah of Joseph & Abigail Lowell born Jan. 31.
 John of Mr. Hudson alias John & Sarah Leveret born Aug. 25.
 Thomas of Henry & Sarah Messenger born Mar. 22.
 James of Samuel & Constance Mattock born Oct. 27.
 Oliver of John & Martha Mellowes born Apr. 3.
 Hannah of Thomas & Sarah Moore born Apr. 26.
 Philip of Robert & Sarah Mason born July 16.
 Jacob of Richard & Sarah Mason born Oct. 17.
 Elizabeth of John & Katharine Maverick born Oct. 17.
 John of John & Rebecca Maverick born July 28.
 Prudence of Michael & Susanna Martine born Mar. 26.
 Ruth of John & Elizabeth Morse born Dec. 18.
 Sarah of Christopher & Prudence Mosse born Mar. 28.
 Samuel of Samuel & Elizabeth Milles born Apr. 27.
 Cotton of Mr. Increase & Mariah Mather born Feb. 12.
 George of George & Lydia Nowell born Mar. 21.
 William of William & Susanna Norton born Sept. 14.
 John of John & Sarah Phillips born Mar. 4.
 Mary of John & Isabel Pearse born Mar. 13.
 Joyliffe of Richd. & Elizabeth Price born Mar. 2.
 Sarah of Zechariah & Eliza. Phillips born Sept. 7.
 Sarah of Thomas & Eliza. Peck born June 5.

Ruth of John & Ruth Pearse born Nov. 22.
 Mary of James & Sarah Pemberton born July 13.
 Hannah of Mr. John & Sarah Paine born Mar. 31.
 James of John & Sarah Parker born Aug. 13.
 John of Timothy & Deborah Pratt born Dec. 3.
 Mary of John & Kesia Perkins born Sept. 8.
 John of James & Martha Robinson born Sept. 17.
 Joseph of Simon & Christian Roberts born Sept. 18.
 William of Wm. & Ruth Read born May 7.
 Samuel of Mr. Joseph & Elizabeth Rocke born May 17.
 Mary of John & Susanna Ransford born Jan. 10.
 Prudence of Amos & Mary Richardson born Jan. 31.
 Sarah of Robert & Betteris Riden born May 29.
 Joseph of Simon & Susanna Rogers born July 29.
 Abigail of Charles & Abigail Stockbridge born Feb. 24.
 Elizabeth of John & Katherine Searle born Oct. 19.
 Ann of Barthol : & Elzaphan Stretton born Feb. 19.
 Rebecca of Richard & Joice Staines born Dec. 26.
 John of Charles & Abigail Stockbridge born Sept. 29.
 Joseph of Mr. Habiah & Hannah Savage born Aug. 15.
 Abigail of William & Hopestill Shute born Aug. 13.
 William of Pilgrim & Catharine Symkins born Oct. 3.
 Elizabeth of Arthur & Joane Scovell born Dec. 1.
 John of Mr. John & Martha Saffine born Apr. 14.
 Sarah of John & Sarah Stutche born Oct. 21.
 Susanna of Thomas & Elizabeth Sheauer born Feb. 7.
 Coleborne of Daniel & Mary Turell born Dec. 4.
 Abigail of Richard & Grace Trevis born Jan. 8.
 Martha of Richard & Martha Tewells born Sept. 8.
 Mary of Benjamin & Elisha Thurston born Apr. 24.
 Abigail of Samuel & Abigail Towne born Sept. 3.
 Isaac of Isaac & Doreas Wooddee born Apr. 6.
 Susanna of Thomas & Susanna Walker born Feb. 20.
 Charles of Thomas & Anne Williams born Sept. 20.
 Sarah of William & Joanna Williams born Apr. 20.
 Sarah of Robert & Rebecca Winsor born May 7.
 Joanna of John & Josabeth Wing born Sept. 4.
 John of Mr. John & Eliza. Woodmansey born Feb. 2.
 Joseph of Peter & Sarah Wanyen born Feb. 19.
 Mary of Eleazer & Mary Way born May 24.
 Hannah of Richard & Esther Way born May 23.
 John of John & Elizabeth Walley born Aug. 27.
 James of James & Rebecca Whetcombe born Nov. 30.

Daniell of Christopher and Rebecca Clarke deceased the 16th of March.
 Samueller of William and Elizabeth Greenough deceased the 21st of March.
 Richard Garret deceased the 29th of March.
 Mr. Samueller Haugh Pastor of the Church at Reading deceased at Mr. Hezekiah Usher's house in Boston the 30th of March.
 George of George and Lydia Nowell deceased the 30th of Aprill.
 Nathaniell Wales deceased the 20th of May.
 William Blanten deceased the fifteenth day of June.
 Elizabeth of Mr. John and Elizabeth Aldin died the 14th of the 5th month.
 Ruth of William and Ruth Read deceased July 17.
 Richard of Richard and Joannah Knight died the 16th of the 5th month.
 Ann of William and An Pollard died the 2nd of the 6th month.
 Alice Griggs died being a widow the 19th of July.
 Mr. William Coleborne deceased August first.
 Henry Blake deceased the 26th day of July.
 Hannah of John and Ruth Pearse died the 28th of July.
 Elisabeth of Nathaniel and Mary Addams died the 17th of the 6th month.
 William Robinson of Bermoodes died the third of September.
 Debora of Jeremiah and Sarah Fitch died January 14.
 Edward of Mr. Thomas and Mary Lake deceased August 12.

Mary of Arthur and Jane Kind died August 28.

Prudence of Michael and Susanna Martyn died the 31st of the 5th month

Sarah of Samuell and Sara Bucknell deceased the 12th of the 5th month.

Richard of Richard and Elisabeth Hollingworth died the 31st of the 6th month.

Edward of Edward and Margrett Cowell deceased the 7th of the 7th month.

Zechariah of Zechariah and Phebe Gillam died the 1st of the 7th month.

Captaine Robert Clarke of Redriffe in Old England died in Boston at the house of Richard Staines in New England 16th of the 7th month.

Mary of Mr. John and Elisabeth Freake died the 25th of the 7th month.

James Lane of Plymouth in Old England carpenter died at Boston in New England October 3d.

Caleb of Caleb and Judeth Pendleton died the 1st of October.

Joanna of John and Joanna Baker died September 14th.

Nathaniel Wales died the 18th of May.

Elisabeth Cane widow died October 8th.

Elisabeth of John and Jane Bushnell died the 17th of the 2d month.

John Tum an Hamburger died the 11th of October, at the house of Richard Bradley Boston in New England.

Debora daughter of Christopher Holland died the 20th of the 7th month.

Thomas Gold deceased the 26th of October.

Richard Woodcock died the 12th of November.

Jacob of Jacob and Mary Elliott deceased the 6th of the 10th month.

John of John and Jane Bushnell died the 10th of the 2nd month.

Mary servant to Thomas Bligh deceased the 27th of November.

An Oliver widow deceased December 20th.

Sarah wife of Edmund Greenleife deceased January 18.

Mehittabell wife of Seth Perry died February 20th.

Captain John Cullick deceased the 23d of January.

Samuell of Samuell and Naomy Sherman died the 18th of the 7th month.

Jacob Ledger deceased the 24th of February.

Anna of Mr. Humphrey and Mary Davy deceased the 12th of September.

Joseph of Joseph and Elisabeth Davis died the 18th of the 12th month.

Mary of William and Mary Hunter died 15th of 1st month.

Nathaniell Ramsey servant to Alexander Addams died the 22nd of the 1st month.

James Hill & Hannah Hincksman were married 10th April by Captaine Daniell Gookine of Cambridge.

Thomas Walker & Susanna Collins daughter of John Collins of Boston were married 25th March by Mr. Richard Russell of Charlestown.

Tego Ockonell & Philipa King servant to John Conney were married first May by Mr. Thomas Danforth of Cambridge.

Mr. John Woodmansey & Elizabeth Carr daughter of George Carr of Salisbury were married first May by Mr. Thomas Danforth.

Richard Price & Grace Waite daughter of Gamaliell Wayte of Boston were married 6th May by Richard Bellingham Deputy Governor.

Joseph Davis & Elizabeth Saywell were married 7th May by Major Willard.

Edward Kilby & Elizabeth Yeomans widow were married 9th May by Major Generall Denison.

Jarrett Ingraham & Elizabeth Searles daughter of Edward Searles were married 23th May by John Endecott Governor.

Eliazer Fawre & Mary Preston daughter of Daniel Preston of Dorchester were married 28th May by John Endecott Governor.

Samuell Mason & Mary Holeman daughter of the late John Holeman of Dorchester deceased were married 29th May by John Endecott Governor.

John Petty & Ann Canning were married 30th May by John Endecott Gov.

Mathew Abdy & Alice Cox were married 24th May by Richard Bellingham Deputy Governor.

Henry Raynor & Johanna Edwards widow were married 9th June by John Endecott Governor.

George Hisket & Sarah Clarke daughter of Thomas Clarke of Nodles Island were married 11th June by John Endecott Governor.

FIRST CHURCH.

Ebenezer of Mary & James Hudson	9 day 1 mo.
John of Sister Brookin	16 day 1 mo.
Mary of John Peirce of church of Maldin	16 day 1 mo.
Thomas of Henry Messinger's wife	23 day 1 mo.
Edward of Edward Cowell's wife	30 day 1 mo.
James of Mr. Braden	6 day 2 mo.
Nathaniel of Henry Bridgham	6 day 2 mo.
Thomas of Dorcas Corbin	6 day 2 mo.
Mary of Dorcas Corbin	6 day 2 mo.
John of Dorcas Corbin	6 day 2 mo.
Robert of Benjamin Thurstone	27 day 2 mo.
Mary of Edward Davis	27 day 2 mo.
Sarah of Rebecca Windsor	11 day 3 mo.
Mary of Read	11 day 3 mo.
Samuel of Mr. Rock	18 day 3 mo.
Mary of Sister Griggs	18 day 3 mo.
Mary of Mr. Way	25 day 3 mo.
Phillip of George Mongay	1 day 4 mo.
Joseph of Simon Rogers	3 day 6 mo.
Mary of James Pemerton	17 day 6 mo.
Samuel of Mrs. Droomer of Ch. of Wattertown	31 day 6 mo.
Sarah of James Richards	7 day 7 mo.
Abigail of Theophilus Frary	7 day 7 mo.
Daniel of Robert Feild	7 day 7 mo.
John of John Androwe	21 day 7 mo.
Benjamin of Tho: Savage	12 day 8 mo.
James of Constance & James Mattock	26 day 8 mo.
Samuel of Henry Phillips	2 day 9 mo.
William of Thomas Brattle	23 day 9 mo.
Jacob of Jacob Eliot	23 day 9 mo.
Colbrone of Daniel Turand's wife	11 day 11 mo.
Prudence of Amos Richisson's wife	8 day 12 mo.
Benjamin of Rachel & Thomas Harwood	8 day 12 mo.
Sarah of Sarah & John Burges	8 day 12 mo.
Cotton of Increase Mather	15 day 12 mo.
Rebecca of John Harrisson	15 day 12 mo.

1663.

TOWN.

John of John & Eliza Aldin born Mar. 12.
 William of William & Mehitabel Aves born March 16.
 Joseph of Nathaniel and Mary Adams born Dec. 19.
 Experience of Henry and Mary Adams born Nov. 9.
 Abigail of Mr. Josua and Mary Atwater born Jan. 23.
 Robert of John & Betteris Alexander born Apr. 19.
 Sarah of Orlando & Sarah Bagly born Mar. 2.
 Elizabeth of Ambros & Mary Bennet born April 1.
 Nathaniel of Nath. & Ruth Beltnap born April 1.
 William of Benja. & Sarah Briscoe born Apr. 7.
 Patience of Mr. Thomas & Mary Broughton born Apr. 14.
 Abigail of Edward & Patience Blake born Nov. 10.
 Nathaniel of Joseph & Ruth Beltnap born Aug. 13.
 Rebecca of Mr. Abraham & Rebecca Browne born Aug. 26.
 Abigail of Samuel & Sarah Bucknell born July 16.
 Faith of Edward & Mary Belcher born May 15.
 Elizabeth of Josiah & Ranis Belcher born July 10.
 Benjamin of Jonathan & Mary Balston born Feb. 8.
 Samuel of John & Sarah Buckman born Feb. 17.

Mary of Mathew & Mary Bernard born Aug. 5.
 John of John & Mary Bull born July 14.
 Elizabeth of Mr. Samuel & Mercy Bradstreet born Jan. 29.
 David of David & Obedience Copp born Mar. 2.
 Samuel of William & Martha Clarke born June 28.
 Elizabeth of Christopher & Rebecca Clarke born Aug. 4.
 Hannah of Henry & Hannah Crab born Apr. 8.
 John of John & Mary Collins born Mar. 1.
 Elizabeth of Josiah & Waitawhile Cooper born May 5.
 William of Timothy & Phillippee Cann born July 21.
 Elizabeth of Timothy & Phillippee Cann born July 21.
 Robert of Mr. Robert & Elizabeth Couch born Nov. 2.
 Mary of Samuel & Sarah Davis born Mar. 21.
 John of Capt. William & Huldah Davis born June 10.
 John of Mr. Robert & Jemima Drue born Oct. 17.
 William of Samuel & Anne Dyer born Mar. 7.
 Edward of Edward & Sarah Ellis born Mar. 16.
 Jonathan of Mr. David & Mary Evans born Apr. 3.
 Joseph of Jacob & Mary Eliott born Jan. 13.
 Thomas of Thomas & Sarah Edwards born Feb. 6.
 Sarah of Jeremiah & Sarah Fitch born Feb. 21.
 Elizabeth of Mr. John & Eliza. Freake born June 13.
 Jasper of Jasper & Eliza. Frost born Feb. 5.
 Margaret of Eleazer & Mary Farr born Nov. 16.
 Dorothy of William & Eliza. Greenough born Mar. 16.
 Benjamin of Zachariah & Phoebe Gillam born Mar. 23.
 Oliver of Oliver & Ann Griffine, born Sept. 6.
 Thomas of Henry & Hannah Glover born June 25.
 Mary of Nathaniell & Mary Greene born May 3.
 Thomas of Richard & Mary George born Oct. 11.
 Hezekiah of Henry & Joane Gidley born May 16.
 Margaret of Mr. Robert & Elizabeth Gibbs born May 13.
 William of John & Elizabeth Gill born Aug. 15.
 Hannah of Elipha. & Anne Hett born Feb. 13.
 Sarah of William & Mary Hunter born May 15.
 Mary of Ezekiel & Eliza. Hamblinne born Nov. 10.
 Thomas of George & Sarah Hiskett born Mar. 30.
 Samuel of John & Eliza. Hunniborn born May 2.
 John of Charles & Margaret Hopkinnes born July 5.
 Abigail of Mr. Joseph & Ellen Hill born Feb. 5.
 Arabella of Thomas & Exercise Hodges born Feb. 1.
 Sarah of Francis & Hannah Hill born Jan. 26.
 Jeremiah of William & Mary Ingram born Jan. 20.
 Joanna of James & Joanna Inglish born Nov. 18.
 Susanna of Edmund & Eliza. Jackson born Dec. 2.
 Thomas of John & Emm Jepson born Nov. 5.
 Elias of John & Rebecca Jarvis born Jan. 13.
 Joanna of Richard & Joanna Knight born July 12.
 Hannah of John & Mary Kneeland born July 18.
 Zachariah of Henry & Mary Kemble born Oct. 7.
 Samuel of Edward & Eliza. Lilly born Mar. 20.
 Thomas of William & Mary Lane born March 8.
 Ann of Capt. Thomas & Mary Lake born Oct. 12.
 Hannah of Edward & Mary Lilly born May 27.
 Richard of Richard & Elizabeth Martin born Mar. 24.
 Thomas of Thomas & Mary Matson born Mar. 1.
 Amey of John & Mary Matson born Mar. 12.
 Robert of Robert & Mary Marshall born at Plymouth in New england Aug. 15.
 Martha } of John & Eliza. Magdanell born Sept. 14.
 Mary } of John & Eliza. Magdanell born Sept. 14.
 James of George & Hannah Manning born Mar. 6.
 Mary of John & Sarah Miriam born May 15.
 Mary of Samuel & Mary Mason born Apr. 19.
 Hannah of Mr. Samuel & Rebecca Mavericke born Oct. 25.

Hannah of Humphrey & Mary Milum born June 27.
 Margaret of Christopher & Prudence Mosse born May 23.
 Jonathan of John & Constance Merry born Sept. 3.
 John of John & Mercy Meeres born Dec. 28.
 Michael of George & Lydia Nowell born Mar. 24.
 Elizabeth of Mr. Robert dec. & Catharine Nanney born Jan. 2.
 Joseph of Samuel & Eliza. Norden born Feb. ult.
 Sarah of Joshua & Elizabeth Nash born Feb. 20.
 Daniel of Mr. Peter & Sarah Oliver born Feb. 28.
 Benjamin of Thomas & Eliza. Peck born Mar. 1.
 James of Benja & Wilmut Phippen born Jan. 30.
 Gamaliel of Gamaliel & Sarah Phippen born Feb. 16.
 Anna of Henry & Eliza. Powning born Feb. 29.
 Phoebe of Nehemiah & Phoebe Pearse born Aug. 31.
 Benjamin of William & Ann Pollard born Apr. 22.
 Ruth of William & Frances Parham born Sept. 30.
 Elizabeth of Mr. Richard & Elizabeth Price born Feb. 10.
 Ebenezer of Richard & Grace Price born Apr. 6.
 Paul of Edward & Elizabeth Page born May 2.
 Elizabeth of John & Mary Parker born Aug. 14.
 Samuel of George & Eliza. Person born Aug. 30.
 Nathaniel of Nathaniell & Sarah Reynolds born Mar. 3.
 Hezekiah of William & Ruth Read born July 6.
 Benjamin of Mr. Joseph & Elizabeth Rock born Sept. 3.
 Dorothy of Jonathan & Mary Rainsford born Sept. 11.
 Sarah of Samuel & Sarah Ryall born May 18.
 Mary of Francis & Elizabeth Smith born July 18.
 Sarah of Richard & Lucretia Smith born Sept. 8.
 Temperance of Thomas & Temperance Smith born May 26.
 Francis of Benja & Hannah Smith born Dec. 14.
 Sarah of Thomas & Sarah Stevens born Dec. 8.
 Henry of Henry & Mary Stevens born May 25.
 Benjamin of Nicholas & Hannah Stone born Feb. 17.
 Hannah of John & Hannah Souther born Aug. 31.
 Benjamin of John & Ann Sandy born Aug. 7.
 John of John & Philippee Snell born Oct. 9.
 John of Mr. Anthony & Christian Stoddard born Apr. 22.
 Arthur of Capt. Thomas & Mary Savage born Feb. 26.
 Arthur of Arthur & Joane Scovell born June 24.
 Ann of Sampson & Abigail Shoare born Aug. 16.
 Joseph of John & Mary Simmons born Aug. 31.
 Samuel of William & Eliza. Spowell born Nov. 1.
 Mary of Clement & Joanna Salmon born Jan. 12.
 Rebecca of Robert & Mary Thornton born Sept. 1.
 Sarah of Daniel & Mary Turell born Oct. 14.
 Eliza. of Daniel & Mary Turell born Oct. 14.
 Matthew of John & Sarah Tamlin born Oct. 13.
 Stephen of Stephen & Hannah Talbye born Aug. 9.
 Derlow of Ephraim & Sarah Turner born Dec. 3.
 Thomas of John & Mercy Verinne born Oct. 15.
 Joanna of Aaron & Joan Way born Mar. 5.
 Thomas of Thomas & Ruth Wyburne born Aug. 10.
 Rebecca of Richard & Rebecca Wayte born Jan. 3.
 Mary of William & Joanna Williams born Jan. 15.
 Rowland of Thomas & Eliza. Watkinnes born Dec. 5.
 Mary of Capt. Richard & Anne Waldren born Sept. 14.
 Esther of Thomas & Esther Woodward of Muddy River born ? —
 William of Mr. Richard & Bethiah Wharton born Apr. 16.
 Elizabeth of Mr. Dean & Sarah Winthrop born July 9.
 Sarah of Edward & Sarah Winslow born Apr. 10.
 Abigail of Nathaniel & Hannah Wilson born Feb. 17.
 Hannah } of Thomas & Hannah Wheeler born May 24.
 Mary } of Thomas & Hannah Wheeler born May 24.
 Joseph of Lawrence & Hannah Waters born Oct. 14.
 Anna of John (the Indian) & Ann White born Feb. 7.

Elizabeth wife of John Purchase died the 16th of March.

Mr John Norton teacher of the Church of Christ at Boston deceased the 5th of April.

Hannah of William and Mary Hunter died the 14th of May.

John of Mr. Anthony and Christian Stoddard died the 1st of May.

Mary of Christopher and Ann Holland died the 25th of 2nd month.

Maria a negro servant of John Blower died the 14th of the 3d month.

Sara wife of Orlando Bagly died the 18th of the 3d month.

Jonathan of Mr. William and Ann Alford died the 24th of the 3d month.

Mathew of Mathew and Mary Whiple died the 30th of the 4th month.

Joseph of Mr. Habia and Hannah Savage died June 30th.

Robert Lincoln deceased May 6th.

John Preston died June 6th.

Mary of Thomas and Hannah Wheeler deceased.

Mary of Mr Samuell and Abigail Moore died July.

Joanna wife of John Baker died the 21st of July.

Alice wife of Bartholomew Bernard died the 29th of June.

Phillip of Robert and Sara Mason died the 3d of the 6th month.

Thomas of Thomas and Hannah Hull died August 1.

Mr. David Evans deceased the 27th of July.

Joseph of Lieutenant Richard and Elizabeth Cook died the 2nd of July.

Jane wife of Thomas Edsell deceased the 9th of September.

Sara of William and Sara Hawkinnes died the 11th of the 7th month.

Sara of Deacon John and Millicent Wiswall died the 19th of the 7th month.

Rebecca of Mr. Abraham and Rebecca Brown died the 12th of the 7th month.

Susanna of Bartholomew and Damaris Thredneedles died the 2nd of June.

Thomas of Thomas and Ruth Wyborne died August 28.

Hannah daughter of John Hyland of Scituat died August 16.

Mary of John and Returne Davis died the 12th of the 6th month.

John of James and Martha Robinson died the 13th of the 6th month.

Robert of Jonathan and Mary Balston died the 3d of October.

Rowland of Thomas and Elizabeth Watkinnes died 20th of 7th month.

John Knowles servant to Mr. John Woodmansey died the 21st of the 10th month.

John White servant to Thomas Buttolph senior died the 22nd of the 7th month.

Elisabeth Hubberd died the 16th day of August.

Mr. Robert Nanny died the 27th day of August.

Samuell of Mr. George and Elizabeth Peirson died the 8th of the 8th month.

Phillippe daughter of John Snell died the 10th of October.

Sara Laurenc servant of Samuel Mattock died 15th October.

Ralph Benning deceased the 14th of November.

Sara & Elisabeth twins of Daniell and Mary Turell died the 22nd of October.

Elisabeth of Captain James and Abigail Johnson died the 23rd of 11th month.

Ellen wife of Mr. Joseph Hill deceased January 6th.

Andrew Cload deceased February the last.

Dorothy wife of John Sunderland died the 29th of January.

Thomas Leader deceased the 28th of October.

—— Paine of Canebeck deceased at the house of Captain Thomas Lake the 15th of February.

Sarah of William and An Cotton died the 22nd of January.

John of Mr. John and Elisabeth Woodmansey died February 1st.

Mary of Nathaniel and Sarah Rainolls died January 8th.

Mary wife of Robert Rainolls deceased January 18.

Rebecca of John and Persis Harrison died July 25th.

Samuell of Nathaniel and Sara Hunn died the 3d of September.

John Meeres deceased the 12th of November

FIRST CHURCH.

Benjamin of Goodman Pecke's wife	8 day 1 mo.
John of Mr. Atwater	15 day 1 mo.
Mary of Thomas Emmins' wife	22 day 1 mo.

Aquilla of Sarah & Gibson a Scotchman	5 day	2 mo.
John of Anthony Stoddard	26 day	2 mo.
Jonathan of Mr. Alford	17 day	3 mo.
Mary of John Meriam	24 day	3 mo.
John of William Davice	14 day	4 mo.
Ann of Sister Keeby	14 day	4 mo.
Hezekiah of Will. Read	12 day	5 mo.
John of Henry Stevens	19 day	5 mo.
Marcy of Francis Smyth's wife	26	July.
Elizabeth of Christopher Clark's wife	9	August.
Elizabeth of Deane Winthrop's wife	23 day	6 mo.
Ann of Sampson Shore's wife	23 day	6 mo.
Nathaniel of sister Baker	23 day	6 mo.
Mary of sister Baker	23 day	6 mo.
Benjamin of Joseph Rocke	6 day	7 mo.
Marcy of Capt. Waldin	11	Oct.
James of James Dinnis	11	Oct.
Sarah of Sarah & Daniel Turant	18	Oct.
Elizabeth of Sarah & Daniel Turant	18	Oct.
Thomas of Sister Veerin	18	Oct.
Mehitabel of Thurston	15 day	9 mo.
Susanna of Edmond Jackson	6 day	10 mo.
Francis of Benjamin Smyth of Ch. of Deadham	20 day	10 mo.
Rebecca of Richard Wayt	3 day	11 mo.
Joseph of Jacob Eliot	17 day	11 mo.
Arthur of Capt. Savag	28 day	12 mo.
Daniel of Peter Oliver	28 day	12 mo.

1664.

TOWN.

William of John & Eliza. Aldin born Mar. 16.
 Remembrance son of John & Martha Amey born Mar. 18.
 James of John & Hannah Andrewes born Dec. 1.
 Peter of Peter & Remember Aspinwall of Muddy River born June 14.
 Martha of Hope & Rachel Allen born Mar. 30.
 Eleazer of Edward & Martha Allen born Apr. 25.
 William of Angola & Eliza. (negroes) born May 13.
 Thomas of Matthew & Hannah Armstrong born June 3.
 John of William & Mehetable Avis born Sept. 10.
 Elizabeth of John & Desire ye Truth Akors born May 18.
 Sarah of David & Sarah Adams born Mar. 7.
 Nathaniel of Matthew & Esther Bunn born Mar. 23.
 John of Thomas & Grace Berry born Mar. 3.
 Patrick of John & Mary Bowhoman born Feb. 14.
 John of John & Thankful Baker born Feb. 26.
 Katharine of Mr Thomas & Elizabeth Brattle born Sept. 26.
 James of Henry & Eliza. Bridgham born May 12.
 Anna of Benja. & Sarah Brisco born Jan. 31.
 Mary of James & Lydia Burgesse born June 9.
 Sarah of William & Hannah Ballantine born Sept. 18.
 Isaac of Stephen & Jane Butler born May 29.
 Hannah of John & Eliza. Brookin born June 16.
 Abigail of William & Lydia Browne born July 6.
 Elizabeth of Mr Abraham & Rebecca Browne born Nov. 17.
 Mary of Samuel & Mary Browne born Sept. 2.
 Persis of William & Persis Browne born Aug. 16.
 Thomas of Thomas & Abigail Bill born Dec. 24.
 Lydia of Capt. Thomas & Mary Bredon born Aug. 8.
 ——— daut of Henry & Frances Bowen born Feb. 17.
 Mary of Thomas & Mary Buttolph born Jan. 21.
 Abigail of Abraham & Abigail Busby born Sept. 16.

Hannah of Jeremiah & Anna Bumstead born Nov. 21.
Elizabeth of Phillip & Judith Bullis born Nov. 19.
Elizabeth of John & Susanna Cole born Mar. 4.
Samuel of Richard & Mary Collins born Mar. 7.
Ebenezer of David & Lydia Chaffinne born Apr. 6.
Thomas of Thomas & Abigail Clarke born July 7.
Elizabeth of John & Eliza. Conney born Apr. 2.
Jonathan of David & Obedience Copp born Feb. 23.
John of Anthony & Hannah Checkley born Dec. 30.
John of John & Elizabeth Combes born July 20.
Joseph of Joseph & Susanna Cocke born Aug. 24.
Elizabeth of Edward & Mary Cowell born Nov. 10.
Rowland of Umphri & Mary Davy born Mar. 23.
Joseph of Edward & Hannah Davis born Aug. 20.
Elizabeth of Samuel & Sarah Davis born Oct. 6.
Joseph of Joseph & Eliza. Davis born June 5.
Samuel of John & Mary Dawes born Sept. 18.
Mary of Ambrose & Mary Dawes born Sept. 24.
John of John & Dorothy Downes born Aug. 14.
Joseph of Ambrose & Esther Due born Feb. 7.
Elizabeth of Obadiah & Alice Emons born Jan. 12.
Samuel of Samuel & Mary Emōns born Nov. 9.
John of Robert & Hannah Earle born Nov. 19.
Elizabeth of Thomas & Martha Fitch born Aug. 2.
Mehetable of Theoph: & Hannah Frarye born Jan. 23.
Sarah of Daniel & Sarah Fairfield born Feb. 19.
Elizabeth of Jasper & Eliza. Frost born Feb. 24.
John of John & Sarah Frankes born May 26.
Susanna of John & Susanna Griffinne born Nov. 13.
Thomas of John & Mary Gilbert born Oct. 4.
Benjamin of Nathaniell & Margaret Gallopp born Jan. 3.
Abigail of Samuel & Mary Gallop born June 27.
Elizabeth of William & Eliza. Greenow born Nov. 30.
Benoni of Believe & Anne Gridley born Sept. 5.
Nathaniel of Nathaniell & Mary Green born Jan. 20.
James of James & Rebecca Green born Dec. 15.
Hezekiah of Henry & Joane Gidley born Feb. 14.
Abigail of Henry & Marah Gibbs born Apr. 12.
Purchase son of William & Sarah Gibson born Apr. 30.
John of John & Hannah Grover born June 23.
Hannah of Thomas & Hannah Hull born Mar. 1.
Ephraim of Thomas & Rebecca Hawkinnes born Apr. 5.
Isaac of John & Persis Harrison born June 18.
Samuel of Nathaniell & Sarah Hunn born Oct. 12.
George of George & Eliza. Hunniborne born Feb. 4.
George of George & Sarah Hollard born Jan. 12.
Hannah of James & Hannah Hill born Mar. 21.
Isaac of Edward & Elizabeth Jones born June 20.
John of John & Jane Johnson born Apr. 11.
Isaac of Edward & Elizabeth Jones born Dec. 1.
William of Arthur & Jane Kinde born Feb. 26.
Mary of Richard & Julian Knight born June 3.
Mary of Joseph & Mary Knight born Jan. 2.
Edward of Edward & Elizabeth Kelley born Nov. 4.
Joseph of Mr Simon & Hannah Lynde born Feb. 12.
Bezalell of Mr Hudson & Sarah Leveret born Sept. 1.
Rebecca of Major General John & Sarah Leveret born Dec.
Benoni of John & Alice Lewes born Jan. 25.
Simeon of Richard & Sarah Mason born Mar. 23.
John of John & Ruth Marshall born Oct. 2.
Christopher of John & Sarah Marshall born Aug. 18.
Joseph of John & Martha Mellowes born Dec. 6.
Rachel of Thomas & Sarah Moore born May 25.
Joanna of Arthur & Joanna Mason born Mar. 26.

John of Michael & Susanna Martyn born May 1.
 Hannah of John & Elizabeth Morse born Feb. 28.
 Mariah of Mr Increase & Mariah Mather born Mar. 17.
 John of John & Mary Matson born Jan. 26.
 Prudence of Christopher & Prudence Mosse born Feb. 6.
 Mary of Richard & Ann Mortimore born May 28.
 Edmund of Edmund & Eliza. Mumford born July 11.
 Elizabeth of Thomas & Ann Michel born Oct. 19.
 Elizabeth of Richard & Experience Miles born Dec. 22.
 David of William & Susanna Norton born May 31.
 Grace of Andrew & Grace Newcomb born Oct. 20.
 Nathaniel of George & Eliza. Orris born Apr. 27.
 William of Mr John & Sarah Payne born Mar. 15.
 Zechariah of Zechariah & Eliza. Phillips born Oct. 22.
 Ann of William & Ann Pollard born Oct. 18.
 Richard of Richard & Grace Price born Apr. 9.
 Thomas of Thomas & Hannah Paine born July 2.
 John of Timothy & Deborah Pratt born Aug. 9.
 Sarah of John & Kesia Perkinnes born Oct. 8.
 William of John & Mary Pell born Apr. 1.
 Elizabeth of Samuel & Deborah Pell born Dec. 5.
 Mary of George & Eliza. Peirson born Nov. 19.
 Ann of Robert & Rose Pegge born May 4.
 Abigail of Richard & Abigail Pattesbal born Sept. 29.
 Abigail of Samuel & Margaret Ruck born June 5.
 Joshua of Joshua & Bathsheba Rice born May 3.
 John of John & Alice Ratcliffe born Nov. 16.
 Elizabeth of Joseph & Eliza. Soper born Mar. 13.
 Thomas of Mr John & Martha Saffinne born Mar. 18.
 John of John & Sarah Snelling born Mar. 17.
 Temperance of Thomas & Temperance Smith born Aug. 28.
 Robert of Robert & Elizabeth Smith born June 1.
 Nathaniel of Nathaniel & Mary Stone born Mar. 25.
 Benjamin of Thomas & Mary Saxton born May 18.
 Bridget of Bartho. & Elizabeth Stretton born Jan. 28.
 Mary of Robert & Eliza. Sanford born Sept. 22.
 Ann of Richard & Joice Staines born Jan. 29.
 Ephraim of John & Sarah Scate born Nov. 18.
 Samuel of Samuel & Naomi Sherman born Apr. 24.
 Experience of William & Eliza. Sumner born Sept. 22.
 Ebenezer of Mr Anthony & Christian Stoddard born July 1.
 John } of John & Tamasin Scarlet born Apr. 16.
 Samuel } of John & Tamasin Scarlet born Apr. 16.
 Thomas of Abia & Hannah Savage born Oct. 19.
 Dorothy of John & Mary Sunderland born Apr. 7.
 John of John & Martha Starr born Dec. 7.
 Thomas of Thomas & Hannah Shearer born Jan. 23.
 John of John & Catharine Searle born Nov. 19.
 Daniel of Daniel & Esther Trevis born Nov. 4.
 Martha of Richard & Martha Tuell born Jan. 24.
 Jonathan of John & Mary Tuttell born Aug. 25.
 Gideon of William & Rebecca Thurrell born July 16.
 Elizabeth of Capt. Richard & Martha Thurston born Sept. 29.
 Eleazer of Benja. & Elishal Thurston born Mar. 2.
 James of James & Martha Talbott born Aug. 23.
 James of John & Mary Tappin born July 4.
 Joshua of William & Sarah Ustis born July 11.
 James of John & Elizabeth Vvall born June 5.
 Dorcas of Isaac & Dorcas Woodce born Aug. 10.
 Joseph of Edward & Eliza. Wanton born May 9.
 Sarah of John & Mary Williams born Aug. 4.
 Thomas of Thomas & Anne Williams born Apr. 9.
 Samuel of Robert & Rebecca Windsor born Sept. 18.
 John of James & Mary Webster born Aug. 5.

Richard of Richard & Bethiah Wharton born Feb. 1.
 Sarah of John & Joshabeth Wing born May 13.
 Peter of Mr James & Rebecca Whetcombe born Mar. 1.
 Thomas of Thomas & Hannah Wheeler born Dec. 9.
 Richard of Mr John & Eliza. Winslow born Apr. 18.
 Deliverance son of John & Deliverance Wakefield born Sept. 8.

Temperance of Thomas and Temperance Smith died the 10th of the 1st month.
 Mary of John Barrell late of Boston and Mary died the 10th of the 1st month.
 Mr. Samuell Maverick died March 10.
 Henry Bishop deceased the 11th of May.
 Thomas Emons deceased the 11th of May.
 John of John and Thomasin Scarlet died May 7th.
 Nathaniell Tucker seaman living in Old England servant to Captain Andrew
 Ashford died at Boston in New England May 19.
 Lydia Balston widow deceased Aprill 25.
 Ruth of John and Elisabeth Mosse died June 2nd.
 Sarah of John and Josabeth Wing died June 15.
 Joshua of Joshua and Bathsheba Rice died May 16.
 Elisabeth of John and Katherine Searle died June 8.
 Nathaniel of Nathaniel and Mary Sherman died June 1.
 Alice wife of Deacon Thomas Marshall died May 20.
 Sarah of John and Tabitha Blower died June 22d.
 Elisabeth of Mr. Jeremiah and Elisabeth Eginton died June 25th.
 William of John and Mary Pell died June 12th.
 Rowland of Mr. Humphry and Mary Davy died June 17.
 Samuell of John and Thomasin Scarlett died June 13th.
 Thomas Munt deceased July 27.
 William of William and Elisabeth Auldinne died the 7th of June.
 Abigail of Josua and Mary Atwater died July 7.
 Thomasin wife of Stephen Barrett died the 8th of July.
 Anna of Samson and Abigail Shore died June 26.
 Elisabeth of John and Elisabeth Conny died June 16.
 Elisabeth of Mr. Robert and Katherin Nanny died July 1.
 Jacob of John and Isabell Pearce died June 20.
 William Feild a stranger died at John Sweet's in Boston July 11.
 Steven of Steven and Hannah Tolbye died July 1st.
 William Rogers died July 13.
 Rebecca of Marshall and Rebeca Rayt.¹

FIRST CHURCH.

Hannah of Henry Powning	6 day	1 mo.
Ann of Tho: Hall's wife	6 day	1 mo.
Edward of Ed. Elice's wife	20 day	1 mo.
Rowland of Humphry Davy	26 day	1 mo.
Edward of Edward Allen	3 day	2 mo.
Sarah of Edward Allen	3 day	2 mo.
Ebenezer of David Chapin of Ch. of Sprinkfield	3 day	2 mo.
Martha of William Hesye's wife	24 day	2 mo.
Sarah of Mr. Firniser of Duxberie	24 day	2 mo.
Purchass son of Sarah Gibson	1 day	3 mo.
Josias of Josias Belcher	3 day	2 mo.
John of Josias Belcher	3 day	2 mo.
Jonathan of Josias Belcher	3 day	2 mo.
Elizabeth of Josias Belcher	3 day	2 mo.
James of Henry Bridgham	15 day	3 mo.
Sarah of Sarah & James Balston	22 day	3 mo.
John of Sarah & James Balston	22 day	3 mo.
James of Sarah & James Balston	22 day	3 mo.
Abigail of Sarah & James Balston	22 day	3 mo.
James of John Vial	12 day	4 mo.

¹ The rest is worn away, being last line of page in MS. — W. S. A.

Ann of Sister Brookin	19 day	4 mo.
Isaac of John Harisson	26 day	4 mo
• Mary of Sister Burges	26 day	4 mo
Ebenezer of Anthony Stoddard	17 day	5 mo
John of John Tappin	17 day	5 mo
Joseph of John Tappin	17 day	5 mo
James of John Tappin	17 day	5 mo
William of John Chickly	3	July.
Elizabeth of Tho: Fitch of Watertowne	7 day	6 mo
Joseph of Edward Davis	4 day	7 mo
John of Mary Wheatly	18 day	7 mo
Jaine of Mary Wheatly	18 day	7 mo
Mary of Mary Wheatly	18 day	7 mo.
Abigail of Abram Busby	18 day	7 mo
Mary of Robert Sanford	25	Sep
William of Sister Windsor	25	Sep.
Kathrine of Mr. Brattle	2	Oct.
Mary of Mrs. Hicks	16	Oct.
Elizabeth of Mrs. Hicks	16	Oct.
Thomas of Mrs. Hicks	16	Oct.
Thomas of Tho: Matson's wife	16 day	8 mo.
Thomas of Abiah Savage	30	Oct.
Elizabeth of James Hudson	6 day	9 mo.
Samuel of Mary Emens	13 day	9 mo.
James of Mary Andrews	4 day	10 mo.
Rebecca of Maior Leveret	11 day	10 mo.
Mehitabel of Theophilus Frary	29 day	11 mo.
Benony of Sister Lewis	29 day	11 mo.

1665.

TOWN.

Edmund of John & Hannah Andrewes born Nov. 4.
 Benjamin of Nathaniel & Mary Addams born Dec. 20.
 Elizabeth of John & Eliza. Aldinne born Apr. 9.
 John of Hugh & Anne Amos born July 16.
 Mary of Benja & Sarah Brisco born Dec. 22.
 John of Ambrose & Mary Bennet born Sept. 21.
 Mary of Roger & Sarah Burges born May 3.
 Elizabeth of Joseph & Ruth Beltnap born July 1.
 William of William & Hannah Ballantine born Nov. 26.
 James of Stephen & Jane Butler born Aug. 2.
 Zurishaddai of William & Persis Browne born Sept. 20.
 Elizabeth of John & Eliza. Brown born July 6.
 Hannah of Samuel & Sarah Bucknell born May 7.
 Mary of Edward & Mary Belcher born Feb. 7.
 Joseph of Josiah & Ranis Belcher born Oct. 14.
 Jonathan of James & Sarah Balston born Dec. 28.
 Susanna of Thomas & Abigail Bill born Mar. 18.
 Thomas of John & Tabitha Blower born May 19.
 Esther of Matthew & Esther Bunn born Nov. 2.
 Thomas of Richard & Eliza. Buckman born Dec. 15.
 James of John & Mary Bull born July 16.
 Annice of Mr. Samuel & Mercy Bradstreet born Nov. 17.
 Edward of Edward & Dorothy Budd born May 31.
 Elizabeth of Thaddeus & Hannah Berry born Nov. 24.¹
 Samuel of Thomas & Esther Brental born Dec. 2.¹
 Jonathan of David & Lydia Chapin born Feb. 12.
 Jane of Shem & Deborah Chapen born Sept. 16.
 John of Percival & Eliza. Clarke born Nov. 1.

¹ Only found in second MS. — W. S. A.

William of John & Eliza. Coney born July 5.
Benjamin of William & Ann Cotton born Mar. 18.
Joseph of Joseph & Hannah Chandler born Oct. 8.
Thomas of Josiah & Waitawhile Cooper born Apr. 5.
Elizabeth of Mr. Robert & Elizabeth Couch born Oct. 20.
Nicholas of Joseph & Susanna Cocke born Dec. 21.
James of Clement & Dorcas Corbinn born Mar. 31.
John of John & Susanna Crosse born Oct. 21.
Deborah of Capt. William & Huldah Davis born Apr. 13.
Mary of John & Returne Davis of Block Island born July 2.
Esther of Samuel & Sarah Davis born Jan. 19.
Rebecca of Ambrose & Mary Dawes born Feb. 25.
Frances of James & Frances Dowell born May 21.
Mary of James & Frances Ellis born Aug. 11.
Deborah of Jeremiah & Sarah Fitch born June 27.
Sarah of Robert & Mary Field born Mar. 25.
Mehetable of Theoph: & Hannah Frarye born Feb. 4.
Samuel of Samuel & Anne Flack born May 7.
Deborah of John & Grace Frank born Jan. 11.
Jonathan of Francis & Mary Franseco born Mar. 21.
Abigail of John & Mary Gilbert born Nov. 12.
Anna of William & Ruth Greenough born May 20.
Elizabeth of Joseph & Lydia Gridley born Dec. 5.
Nathaniel of John & Mary Glover born Oct. 6.
Rebecca of Richard & Rebecca Green born Aug. 7.
Ann of Benja. & Hannah Gislam born June 6.
Mary of Richard & Mary George born Jan. 26.
Robert of Mr. Robert & Elizabeth Gibbs born Sept. 20.
Elizabeth of Henry & Mary Gibbs born June 25.
Benjamin of Benja. & Lydia Gibbs born Aug. 22.
Sarah of William & Sarah Gibson born Feb. 5.
Mary of Jonathan & Mary Gatcliffe born Dec. 14.
Martha of Peter & Jane Golding born Jan. 21.
Peter of Peter & Jane Golding born —
Ephraim of Thomas & Rebecca Hawkinns born Oct. 15.
John of Eliphalet & Anne Hett born Feb. 9.
Mary of Thomas & Hannah Hull born Feb. 18.
Hannah of Joseph & Frances How born Apr. 15.
Rebecca of Richard & Mary Hickee born Mar. 26.
Mary of William & Mary Hunter born Apr. 25.
Benjamin of Ezekiel & Eliza. Hamlinn born Nov. 26.
Richard of Nicholas & Eliza. Hayward born Aug. 10.
William of Nathaniell & Eliza. Harwood born Mar. 28.
Elizabeth of Henry & Eliza. Harwood born Apr. 3.
John of George & Sarah Hiskett born May 14.
Experience of Jabez & Experience Heaton born June 15.
John of John & Joanna Howen born Nov. 12.
Israel of Israel & Ann Howen born Aug. 26.
John of John & Elizab. Jones born Nov. 8.
Anna of William & Rebecca James born Oct. 5.
Joseph of Joseph & Mary Knight born Mar. 3.
Elizabeth of Henry & Ruth Kiskeyes born May 3.
Henry of Henry & Mary Kembol born Feb. 25.
John of John & Mary King born May 24.
Susanna of Mr. Thomas & Abigail Kellond born Oct. 21.
John of Capt. Thomas & Mary Lake born Feb. 22.
Ruth of John & Naomi Lowell born July 11.
Joseph of Joseph & Abigail Lowell born Nov. 19.
Hosea of Jeremiah & Sarah Morrill born July 25.
Mary of Mr. Robert & Mary Marshall born Mar. 1.
Constance of Samuel & Constance Mattock born Sept. 10.
Hannah of Henry & Hannah Manning born Apr. 20.
Ann of Samuel & Mary Mason born July 4.
Sarah of John & Katharin Maverick born June 20.

Edward of Michael & Susanna Martyn born July 12.
 Elizabeth } of Richard & Elizabeth Martin born Apr. 15.
 Mary } of Richard & Elizabeth Martin born Apr. 15.
 Ebenezer of Henry & Sarah Messenger born Oct. 25.
 Stephen of Samuel & Mary Meers born Nov. 21.
 William of William & Katharine Mansell born Sept. 14.
 Simon of Simon & Mary Melin of Winnisimmett born Sept. 25.
 William of William & Dorcas Morrice born Dec. 18.
 Lydia of Robert & Lydia Miller born Jan. 25.
 George of George & Lydia Nowell born Dec. 16.
 Sarah of Andrew & Millicent Neale born Apr. 1.
 Arthur of Robert & Mary Oakes born Mar. 17.
 Ann of Mr. John & Sarah Paine born Mar. 24.
 Elisha of Henry & Mary Phillippes born May 12.
 Sarah of Nicholas & Hannah Phillips born Apr. 13.
 Nicholas of Nicholas & Philippa Phillips born Nov. 30.
 Ebenezer of Thomas and Eliza. Peck born July 11.
 Thankful of Thomas & Eliza. Peck born July 11.
 Sarah of John & Isabel Pearse born Aug. 10.
 Benjamin of James & Sarah Pemberton born Mar. 11.
 Elizabeth of Mr. John & Sarah Paine born Feb. 19.
 Hannah of John & Ruth Pease born Mar. 1.
 Experience of Robert & Rose Pegg born Mar. 22.
 Richard of Richard & Abigail Patteshall born Feb. 7.
 Elias of Elias & Sarah Parkman born Nov. 13.
 Mary of Joseph & Ann Penewell born Feb. 13.
 William of Edward & Mary Right born Oct. 3.
 Martha of George & Mary Robinson born Mar. 31.
 Elizabeth of Simon & Christian Roberts born Dec. 28.
 Sarah of William & Ruth Read born June 26.
 William of William & Hannah Reade born Mar. 26.
 Isaac of John & Susanna Ransford born Apr. 8.
 Samuel of Samuel & Sarah Ryall born Feb. 17.
 Mary of Samuel & Sarah Ryall born Feb. 17.
 John of John & Eliza. Rowland born Sept. 4.
 Samuel of Henry & Mary Stevens born Sept. 24.
 Paul of Joseph & Elizabeth Souther born Jan. 30.
 Mary of Thomas & Mary Saxton born Jan. 9.
 Elizabeth of Caleb & Mary Stretton born Feb. 24.
 Edward of Jonath : & Mary Shrimpton born Sept. 22.
 Mary of Nathaniel & Mary Sherman born Mar. 28.
 Hannah of Bartho & Hannah Sutton born Sept. 13.
 Joseph of Joseph & Eliza. Soper born Mar. 23.
 Dorothy of Mr. Anthony & Christian Stodderd born Nov. 24.
 Thomas of Thomas Jr. & Elizabeth Savage born July 20.
 William of William & Hopestill Shute born Aug. 28.
 Mary of John & Thomasin Sunderland born July 15.
 Elizabeth of Arthur & Joane Scovell born Sept. 18.
 Rebecca of Pilgrim & Catharine Simkins born Mar. 14.
 Elizabeth of Clement & Joanna Salmon born Feb. 26.
 Henry of Thomas & Mary Swan born May 16.
 Robert of John & Martha Sharp of Muddy River born May 17.
 Rachel of Philip & Rachel Squire born Jan. 5.
 Joseph of Alexander & Anne Simson born Jan. 17.
 Mehetable of Richard & Grace Trevis born Mar. 2.
 Benjamin of Daniel & Mary Turell born June 21.
 Hannah of Mr. Henry & Mary Taylor born July 7.
 Richard of Richard & Elizabeth Tout born Oct. 25.
 Samuel of Stephen & Hannah Talbye born Jan. 9.
 Robert of Ephraim & Sarah Turner born June 17.
 Prudence of William & Frances Turner born Oct. 12.
 John of Francis & Rebecca Thomas born Apr. 15.
 William of William & Sarah Towers born July 19.
 William of Bernard & Mary Trott born Nov. 23.

Joseph of Thomas & Mary Townsend born Dec. 23.
 James of John & Mercy Verin born Mar. 4.
 Sarah of Richard & Rebecca Wayt born June 23.
 John of Thomas & Ruth Wyborne born Sept. 25.
 Thomas of Thomas & Susanna Walker born May 31.
 John of John & Jane Williams born Dec. 28.
 Hannah of Thomas & Eliza. Watkinnes born Apr. 9.
 Hannah of Thomas & Esther Woodward of Muddy River born Apr. 11.
 Sarah of John & Jehosebath Wing born Feb. 9.
 James of Mr. John & Eliza. Woodmansey born Dec. 7.
 Mary of Edward & Sarah Winslow born Apr. 30.
 Benjamin of Peter & Sarah Warren born July 25.
 Mary of Thomas & Naomi Wells born Apr. 15.
 Elizabeth of John & Elizabeth Walley born May 8.
 Susanna of Joseph & Mary Wheeler born Dec. 25.
 Hannah of Lawrence & Hannah Waters born Jan. 26.
 Elizabeth of Mr. John & Eliza. Winslow born Mar. 14.
 Mary of Mr. William & Mary Whitingham born May 26.
 Hannah of Robert & Hannah Wakum born Dec. 3.
 Samuel of Samuel & Joanna Ward born Nov. 16.
 Mary of Samuel dec. & Bridget Wesselbee late of Norwich in England born Jan. 10.

FIRST CHURCH.

Nathaniel of Nathaniel Renolds	26 day	1 mo.
Sarah of Nathaniel Renolds	26 day	1 mo.
Sarah of Robert Feild	26 day	1 mo.
Deborah of Mr. Davis	16 day	2 mo.
Richard of Grace Price	16 day	2 mo.
Ann of Joseph How	16 day	2 mo.
Mary of Sister Wells	16 day	2 mo.
Ann of Humphrey Davy	30 day	2 mo.
Elishu of Henry Philips	15	May.
Mary of Nath: Renolds	28	May.
Ebenezer of Sister Peck	18 day	4 mo.
Thankful of Sister Peck	18 day	4 mo.
Saray of Sister Brookin	18 day	4 mo.
Sara of Sister Turand	25 day	4 mo.
Benjamin of Richard Waight	25 day	4 mo.
Timothy of Sister Hickee	1 day	5 mo.
Deborah of Jeremiah Fitch	1 day	5 mo.
Sarah of William Read	1 day	5 mo.
Mary of George Monioy	9 day	5 mo.
Ruth of John Looell	16 day	5 mo.
Sarah of John Peirce	13 day	6 mo.
Benjamin of Benjamin Gibbes	27 day	6 mo.
David of Arthur Mason's wife	10	Sept.
Mary of Arthur Mason's wife	10	Sept.
Joanna of Arthur Mason's wife	10	Sept.
Constance of Sister Mattock	17	Sept.
Joseph of Josia Belcher	15 day	8 mo.
Ebenezer of Sister Messinger.	29	Oct.
John of Mr. Saffin	12	Nov.
Thomas of Mr. Saffin	12	Nov.
{ Joseph of Joseph Belknap	12	Nov.
{ Elizabeth of Joseph Belknap	12	Nov.
{ Mary of Joseph Belknap	12	Nov.
Joseph of Joseph Davis	12	Nov.
Ann of Mr. Broadstreet	19	Nov.
Deborah of Mr. Stoddard	26	Nov.
Robert of Mrs. Marshall	3 day	10 mo.
William of Sister Balentine	3 day	10 mo.

{ Elizabeth of Sister Norden	10 day	10 mo.
{ Susannah of Sister Norden	10 day	10 mo.
{ Abigail of Sister Norden	10 day	10 mo.
{ Joseph of Sister Norden	10 day	10 mo.
Joanna of John Wing	10 day	10 mo.
Jonathan of Sister Balston	31 day	10 mo.
Mehetabel of Theophilus Frayry	11 day	12 mo.
Sarah of John Wing	11 day	12 mo.
Sarah of Sister Gibson	11 day	12 mo.
{ John of Martha & John Shaw	4 day	12 mo.
{ Martha of Martha & John Shaw	4 day	12 mo.
{ Joseph of Martha & John Shaw	4 day	12 mo.
{ Nathaniel of Sarah & Nathaniel Hunn	4 day	12 mo.
{ John of Sarah & Nathaniel Hunn	4 day	12 mo.
{ George of Sarah & Nathaniel Hunn	4 day	12 mo.
{ Sarah of Sarah & Nathaniel Hunn	4 day	12 mo.
Mary of Hannah Hall	18 day	12 mo.
Jonathan of David Chapin	18 day	12 mo.
Mary of Mrs. Marshall	25 day	12 mo.

1666.

TOWN.

William of John & Eliza: Auldin born Mar. 5.
 Martha of Edward & Martha Allen born Mar. 11.
 Desire ye Truth of John & Desire ye Truth Akors of Muddy River born Mar. 9.
 Sarah of Richard & Eliza. Bernard born Mar. 4.
 John of John & Mary Cotton born Mar. 13.
 Mary of Edward & Sarah Ellis born Mar. 28.
 William of Clement & Mary Grose born Mar. 3.
 Jacob of Edward & Elizabeth Jones born Mar. 10.
 Ebenezer of William & Mary Lane born Mar. 27.
 Henry of Edmund & Eliza. Mumford born Mar. 7.
 William of William & Frances Parham born Mar. 16.
 Thomas of Thomas & Temperance Smith born Mar. 5.
 Mary of Richard & Lucretia Smith born April 2.
 [Only the foregoing births of this year are found in oldest MS., which ends here. — W. S. A.]
 Mary of Henry & Mary Adams born Apr. 24.
 Matthew } of Matthew & Hannah Armstrong born May 29.
 John } of Matthew & Hannah Armstrong born May 29.
 Nathaniel of Peter & Remembr: Aspinwall born June 5.
 Ruth of John & Martha Amey born June 24.
 Jane als Grace of Joshua & Mary Atwater born Sept. 9.
 Elizabeth of David & Sarah Adams born Dec. 26.
 Elizabeth of Angola & Elizabeth (negroes) born Dec. 10.
 John of John & Mary Adams born Jan. 21.
 Zachariah of John & Elizabeth Alden born March 8.
 James of John & Hannah Andrews born Mar. 17.
 Grace of Francis & Joice Burgis born May 6.
 Joseph of Samuel & Sarah Bucknell born May 10.
 William of John & Jane Bushnell born June 28.
 William of William & Lydia Browne born July 8.
 Sarah of Phillip & Judith Bullis born July 21.
 Joseph of Joseph & Eliza. Buckminister born July 3
 Abigail of Thomas & Mary Buttolph born Jan.
 Bethiah of Thomas and Elizabeth Brattle born Dec. 13.
 John of Benja & Sarah Brisco born Jan. 20.
 Thomas of Jeremiah & Anna Bumstead born Feb. 22.
 Mercy of James & Lydia Burges born Feb. 17.
 John of William & Martha Clarke born Apr. 3.
 Susanna of Ralph & Susanna Carter born Aug. 15.
 John of Matthew & Elizabeth Coy born Sept. 2.

John of John & Susanna Cole born Jan. 17.
Caleb of Richard & Martha Coy born Aug. 15.
Timothy of Timothy & Elizabeth Crummell born Nov. 12.
Mary of John & Elizabeth Coombs born Nov. 28.
Abigail of John & Susanna Cross born Feb. 1.
Mary of Christopher & Rebecca Clarke born Mar. 1.
William of David & Obedience Copp born Mar. 14.
David of David & Frances Carwithen born Apr. 27.
Mary of James & Mary Dennis born June 16.
John of Joseph & Eliza. Davis born Oct. 2.
Elizabeth of Anthony & Eliza. Davis born Oct. 26.
Sarah of Thomas & Sarah Deane born Oct. 27.
Susanna of John & Mary Dawse born Nov. 21.
John of Fathergon & Hannah Dinely born Dec. 28.
Elizabeth of James & Frances Dowell born Jan. 2.
Edward of Edward & Hannah Davis born Feb. 6.
Margaret of Humphrey & Mary Davie born Feb. 19.
Benjamin of William & Sarah Eustis born May 17.
John of Thomas & Sarah Edwards born Oct. 8.
John of John & Mary Ewell born Oct. 2.
Mary of Obadiah & Alice Emons born Jan. 16.
Obadiah of Samuel & Mary Emons born Jan. 19.
Hannah of Jacob & Mary Elliott born Mar. 17.
Joseph of John & Sarah Franks born June 14.
Clarke of John & Elizabeth Freake born Oct. 11.
Henry of Henry & Mary Floyd born Oct. 27.
Richard of Thomas & Margaret Forbush born Mar. 23.
Abigail of Jeremiah & Sarah Fitch born Aug. 5.
Mehetable of John & Ruth Gwinn born May 29.
Elizabeth of John & Ann Greenleaf born July 19.
Thomas of Thomas & Catharine Goodridge born July 2.
Mary of Believe & Anna Gridley born Dec. 4.
Thomas of James & Rebecca Green born Jan. 2.
Remember of John & Susanna Griffin born Feb. 5.
Thomas of John & Elizabeth Gill born Sept. 16.
Temperance of Henry & Joane Gidley born Mar. 23.
Elizabeth of Nathanll & Mary Green born June 29.
Elizabeth of Isaac & Elizabeth Gross born May 22.
Hezekiah of Barnard & Mary Harris born Aug. 13.
Mary of Elisha & Hannah Hutchinson born Oct. 11.
Rebecca of Nicholas & Elizabeth Hayward born Nov. 19.
Melatiah of Thomas & Rebecca Hawkins born Nov. 12.
Joanna of Jabez & Experience Heaton born Dec. 18.
Elizabeth of John & Elizabeth Hooper born Jan. 22.
James of James & Hannah Hill born Feb. 21.
Henry of Henry & Elizabeth Harwood born Feb. 23.
Mary of William & Mary Ingram born June 26.
William of John & Rebecca Jarvis born Aug. 10.
Susanna of Edmund & Elizabeth Jackson born Sept. 19.
Mary of John & Mary Kneeland born Apr. 13.
John of John & Mary King born Aug. 13.
Sarah of Thomas & Elizabeth Kemble born Apr. 19.
Susanna of Richard & Julian Knight born Jan. 21.
Elizabeth of Edward & Elizabeth Lillie born July 6.
Nathaniel of John & Alice Lewis born July 5.
Benjamin of Simon & Hannah Lynde born Sept. 23.
Ruth of Humphrey & Mary Milam born Apr. 26.
Benjamin of John & Mary Mann born May 26.
Michael of John & Isabel Magdaniel born July 26.
Arthur of Arthur & Joanna Mason born Apr. 16.
Sarah of James & Margery Maxwell born Oct. 19.
James of James & Elizabeth Meers born Dec. 21.
Mary of John & Mary Matson born Dec. 22.
Mary of George & Hannah Manning born Nov. 3.

Joseph of John & Sarah Marion born Oct. 14.
 Elizabeth of Increase & Maria Mather born Jan. 6.
 Edmund of Return & Sarah Munnings born Mar. 21.
 Thomas of John & Ruth Marshall born Feb. 6.
 Elizabeth of Robert & Sarah Mason born Feb. 23.
 Mary of Andrew & Millicent Neale born June 6.
 Joshua of Samuel & Elizabeth Norden born July 3.
 Robert of Joshua & Elizabeth Nash born Dec. 3.
 Hannah of Elisha & Abigail Odlin born Sept. 3.
 Matthias of William & Mary Okington born Jan. 1.
 Michael of Seth & Dorothy Perry born Apr. 11.
 Jonathan of William & Ann Pollard born Apr. 12.
 Ann of Gamaliel & Sarah Phippen born Apr. 28.
 Timothy of Timothy & Deborah Prout born July 6.
 John of John & Mary Pell born June 30.
 Rebecca of Benja. & ——— Phippen born Aug. 10.
 Jonathan of Henry & Mary Phillips born Sept. 12.
 Elizabeth of Edward & Elizabeth Page born Sept. 12.
 Nathaniel of Thomas & Elizabeth Peck born Nov. 17.
 Deliverance of John & Deliverance Pollard born Sept. 19.
 Judith of John & Judith Parmiter born Feb. 14.
 William of Samuel & Deborah Pell born Feb. 21.
 Hannah of Jona. & Mary Rainsford born Apr. 5.
 Daniel of Nathanll & Damaris Robinson born Feb. 10.
 Peter of Samuel & Margaret Ruck born Jan. 25.
 Elizabeth of William & Ruth Read born Dec. 22.
 Thomas of John & Alice Ratliffe born Jan. 17.
 Humphry of Humphry & Mehetable Richards born Jan. 12.
 Elisha of Joseph & Elizabeth Rock born Feb. 16.
 Thomas of Thomas & Sarah Rawlins born Jan. 20.
 Symon of John & Martha Saffin born Apr. 4.
 Anna of William & Martha Smith born Apr. 6.
 Sarah of John & Ann Sawdy born Apr. 9.
 Mary of John & Mary Symons born June 26.
 Mary of Joseph & Mary Sanderson born July 6.
 Elizabeth of John & Sarah Skeath born July 4.
 Richard of Richard & Elizabeth Shute born Aug. 31.
 Mary of John & Eliza. Skinner born Oct. 26.
 Ebenezer of William & Eliza. Sumner born Oct. 30.
 Daniel of Daniel & Deliverance Searle born Oct. 29.
 Comfort of Comfort & Mary Starr born Nov. 15.
 Mary of Samuel & Eliza. Shrimpton born Dec. 4.
 Philip of Nathaniel & Mary Sherman born Dec. 30.
 Thomas of Thomas & Mary Swann born Feb. 8.
 Ebenezer of John & Catharine Searle born Mar. 6.
 William of Bartho & Hannah Sutton born Mar. 3.
 Mehetable of Benja. & Elishua Thurston born Nov. 11.
 Eliza. of Capt. Richard & Mary Thurston born May 26.
 Benjamin of Bartho : & Damaris Thredneedle born June 5.
 Nathaniel of John & Joanna Turner born June 26.
 Priscilla of John & Sarah Tuckerman born Aug. 5.
 John of Henry & Mary Taylor born Aug. 4.
 Elizabeth of William & Eliza. Talmage born Sept. 22.
 Joseph of James & Martha Talbott born Sept. 21.
 William of Peter & Lydia Townsend born Sept. 13.
 David of Samuel & Abiga Townsend born Sept. 29.
 Isaac of John & Sarah Tomson born Oct. 21.
 Sarah of Ephraim & Sarah Turner born March 24.
 John of Aaron & Joane Way born May 8.
 John of John & Hannah Wiswall born May 12.
 Samuel of Nathanll & Hannah Wilson born June 10.
 Lydia of Robert & Rebecca Winsor born Aug. 1.
 Jose of Deane & Sarah Winthrop born May 3.
 Humphry of Richard & Bethiah Wharton born Aug. 5.

Hannah of Thomas & Anne Williams born Mar. 22.
 Anna of John & Deliverance Wakefield born Sept. 2.
 Ann of Isaac & Dorcas Woodee born Nov. 21.
 Hannah of Thomas & Elizabeth Watkins born Oct. 28.
 Samuel of Thomas & Hannah Wheeler born Dec. 23.
 Peter of James & Rebecca Whetcomb born Dec. 7.
 John of William & Hannah Williams born Dec. 20.
 Mary of Joseph & Mary Wheeler born Feb. 23.
 Joseph of Joseph & Grace Webb born Mar. 10.
 Elizabeth of William & Mary Whittingham born Dec. 24.

FIRST CHURCH.

James of Allen	11 day	1 mo.
Benjamin of Will. Cotton	25 day	1 mo.
Mary of Sister Elice		1 aprell.
Simon of Saffin	15 day	2 mo.
Michael of Seth Perry	15 day	2 mo.
Ruth wife of John Marshall	22 day	2 mo.
Sarah wife of John Centure	22 day	2 mo.
Abigail of Arthur Mason	22 day	2 mo.
Ann of Abigail Phipeny	29 day	2 mo.
William of Nath. Harwood's wife	29 day	2 mo.
{ James of Mary Hawkins	29 day	2 mo.
{ Elizabeth of Mary Hawkins	29 day	2 mo.
{ Sarah of Mary Hawkins	29 day	2 mo.
{ James of Ruth Marshall	29 day	2 mo.
{ John of Ruth Marshall	29 day	2 mo.
{ Mary of Ruth Marshall	29 day	2 mo.
Benjamin of James Pemerton	6 day	3 mo.
Richard of Richard Crichly	6 day	3 mo.
{ Elizabeth of Nicholas Phillips' wife	6 day	3 mo.
{ Hannah of Nicholas Phillips' wife	6 day	3 mo.
{ Abigail of Nicholas Phillips' wife	6 day	3 mo.
{ Sarah of Nicholas Phillips' wife	6 day	3 mo.
{ John of John Centure's wife	6 day	3 mo.
{ Elizabeth of John Centure's wife	6 day	3 mo.
John of Sister Marshall	20 day	3 mo.
Amye of Ann Matson	20 day	3 mo.
Ann of Martha Smyth	3 day	4 mo.
{ Mary wife of John Neeland	10 day	4 mo.
{ Mary of John Neeland's wife	10 day	4 mo.
{ Ann of John Neeland's wife	10 day	4 mo.
Joyce of Sister Winthorp	10 day	4 mo.
{ Elizabeth of Elizabeth Weeden	17 day	4 mo.
{ Sarah of Elizabeth Weeden	17 day	4 mo.
{ Mary of Elizabeth Weeden	17 day	4 mo.
{ Ann of Elizabeth Weeden	17 day	4 mo.
{ Edward of Elizabeth Weeden	17 day	4 mo.
Mary of Mary Dennis	17 day	4 mo.
Nathaniel of Sister Lewes	8 day	5 mo.
Josua of Samuel Norden	8 day	5 mo.
Josua of Henry Phillips	22 day	5 mo.
{ Bridget of Freegrace Bendall	5 day	6 mo.
{ Elizabeth of Freegrace Bendall	5 day	6 mo.
{ Ann of Freegrace Bendall	5 day	6 mo.
Lydia of Sister Winsor	5 day	6 mo.
Samuel of Sister Miles	12 day	6 mo.
Abigail of Jeremy Fitch	12 day	6 mo.
Sarah of John Cotton	16 day	7 mo.
{ Jeremiah of Mrs. Greene	16 day	7 mo.
{ Susannah of Mrs. Greene	16 day	7 mo.
{ Mary of Mrs. Greene	16 day	7 mo.
{ Elizabeth of Mrs. Greene	16 day	7 mo.

{ Mary of Samuel Mason	16 day 7 mo.
{ Anna of Samuel Mason	16 day 7 mo.
{ Jacob of Hope Allen's wife	16 day 7 mo.
{ Joseph of Hope Allen's wife	16 day 7 mo.
{ Rachel of Hope Allen's wife	16 day 7 mo.
{ Mary of Hope Allen's wife	16 day 7 mo.
{ Benjamin of Hope Allen's wife	16 day 7 mo.
Heiborne son of Rich: Wait	23 day 7 mo.
Susanna of Edmond Jackson	23 day 7 mo.
Elizabeth of Will: Talmage	23 day 7 mo.
John of Joseph Davis	14 day 8 mo.
Joseph of John Meriam	21 day 8 mo.
Abigail of Samuel Mason	21 day 8 mo.
Sarah of James Mackwell	21 day 8 mo.
Robert of Robert Gibbs	14 day 8 mo.
Margaret of Robert Gibbs	14 day 8 mo.
Nathaniel of Sister Pecke	18 day 9 mo.
Mary of George Manning	25 day 9 mo.
Bethiah of Mr. Brattle	16 day 10 mo.
Mary wife of Joseph Knight	16 day 10 mo.
Elizabeth of William Read	23 day 10 mo.
Tho: of Sister Sheerod	23 day 10 mo.
Mary of Sister Sheerod	23 day 10 mo.
Mary of Ambrose Dawes	23 day 10 mo.
Susan of Ambrose Dawes	23 day 10 mo.
Mary of Mrs Person	30 day 10 mo.
Mary of John Matson's wife	30 day 10 mo.
Susan of Ambrose Dawes' wife	30 day 10 mo.
Anna of Ambrose Dawes' wife	30 day 10 mo.
Elizabeth of Mr. Mather	3 day 12 mo.
Obediah of Mary Emins	3 day 12 mo.
Edward of Edward Davis	9 day 12 mo.
Thomas of Ruth & John Marshall	9 day 12 mo.
Elisha of Mr. Rocke	17 day 12 mo.
Margaret of Mr. Davy	24 day 12 mo.
Marcy of Sister Burges	24 day 12 mo.

TOWN.

Abraham of William & Mehetable Avis born June 28.
 Elizabeth of Nathanll & Mary Adams born Oct. 2.
 Joseph of Henry & Mary Adams born Oct. 4.
 Abraham of Abraham & Sarah Adams born Nov. 11.
 Anna of Hugh & Ann Amos born Jan. 28.
 Hannah of Matthew & Hannah Armstrong born Feb. 19.
 Christian of John & Elizabeth Brookin born July 22.
 Hannah of James & Hannah Brading born Aug. 1.
 Samuel of Samuel & Sarah Bucknell born June 14.
 Elizabeth of Richard & Elizabeth Barnam born Aug. 20.
 Isaac of Stephen & Jane Butler born Aug. 10.
 Edward of Edward & Patience Blake born Oct. 16.
 Alice of Free Grace & Mary Bendall born Oct. 4.
 Mary of John & Mary Bull born Oct. 29.
 Mercy of Samuel & Mary Bradstreet born Nov. 20.
 Thomas of Ambrose & Mary Bennet born Nov. 10.
 Mary of John & Sarah Buckman born Dec. 12.
 Rebecca of Josiah & Ranis Belcher born Dec. 31.
 Michael of Thomas & Abigail Bill born Dec. 27.
 Elizabeth of Roger & Elizabeth Burges born Nov. 13.
 John of George & Pearne Broughton born Jan. 22.
 Susanna of William & Hannah Balentine born Feb. 2.

Mary of Edward & Dorothy Bird born Jan. 31.
 Martha of James & Jemima Biss born Feb. 23.
 Sarah of Abraham & Abigail Basby born Jan. 7.
 Abigail of John & Mary Bohannon born Sept. 26.
 Samuel of Thaddeus & Hanna Berry born June 20.
 Josiah of Josiah & Waitawhile Cooper born Apr. 4.
 Susannah of Joseph & Susanna Cock born June 30.
 Thomas of John & Elizabeth Coney born Sept. 26.
 Mary of Percival & Elizabeth Clarke born Oct. 18.
 Benjamin of Samuel & Jane Cane born Nov. 24.
 John of John & Martha Clarke born Jan. 27.
 Mary of Robert & Elizabeth Couch born Dec. 24.
 Samuel of Matth: & Elizabeth Coy born Feb. 19.
 Elizabeth of Timothy & Philippe Cunnell born Jan. 16.
 Mary of John & Mary Cotta born Mar. 1.
 Thomas of Leonard & Mercy Dowding born July 22.
 Rebecca of Samuel & Sarah Davis born July 9.
 Margaret of Capt. Wm. & Judith Davis born Nov. 13.
 Elizabeth of Thomas & Sarah Deane born Dec. 29.
 William of John & Dorothy Downes born Feb. 23.
 Mary of William & Phoebe Eglin born July 8.
 Mary of Edward & Sarah Ellis born Dec. 11.
 Elizabeth of Samuel & Mary Emmons born Feb. 11.
 Elizabeth of James & Frances Ellis born Feb. 1.
 Jeremiah of Jeremiah & Sarah Fitch born Sept. 1.
 Elizabeth of John & Susanna Farnham born Nov. 11.
 Mary of Edward & Mary Farnham born Dec. 17.
 John of John & Elizabeth Freake born Jan. 8.
 Abigail of John & Ann Flacke born Feb. 21.
 William of William & Maria Gard born July 13.
 Ebenezer of John & Mary Gilbert born Jan. 24.
 Nathaniel of Nathanll & Mary Greene born Jan. 24.
 Luke of William & Ruth Greenough born Feb. 10.
 Priscilla of William & Sarah Gibson born Feb. 12.
 Sarah of Henry & Mary Gibbs born Jan. 28.
 Frances of Peter & Jane Goulding born Feb. 22.
 Joseph of Charles & Margaret Hopkins born Aug. 1.
 Samuel of Thomas & Hannah Hull born Aug. 14.
 William of William & Martha Holstead born Aug. 19.
 Mary of Joshua & Hannah Hewes born May 27.
 ——— dau. of John & Sarah Heward born May 19.
 Susanna of Daniel & Sarah Henschman born June 7.
 Sarah of Joseph & Sarah Hurd born Oct. 1.
 Sarah of George & Sarah Hisket born Sept. 27.
 John of John & Joanna Hunlock born Oct. 7.
 William of William & Mary Hamlin born Oct. 11.
 Hannah of Ezekiel & Eliza. Hamlin born Nov. 2.
 Mary of John & Mary Holman born Dec. 14.
 Anna of Thomas & Jane Harding born Feb. 20.
 Sarah of James & Sarah Harris born Mar. 2.
 Lydia of Joseph & Frances How born Mar. 16.
 Thomas of Eliphah & Ann Hett born Mar. 16.
 Elisha of Elisha & Hannah Hutchinson born Mar. 16.
 Elizabeth of John & Joanna Howen born Feb. 16.
 John of James & Joanna Ingles born Sept. 5.
 Mary of James & Anna Johnson born Oct. 19.
 Mercy of Richard & Joanna Knight born Mar. 31.
 John of Thomas & Abigail Kellond born June 2.
 Thomas of Thomas & Mary Kingston born Sept 29.
 Samuel of Joseph & Mary Knight born Jan. 11.
 Sarah of Hudson & Sarah Leveret born June 6.
 Hannah of John & Ursula Lawrance born June 10.
 Margaret of John & Naomi Lowell born Oct. 20.
 John of John & Hannah Luscomb born Jan. 2.

Thomas of Edward & Elizabeth Lillie born Jan. 10.
 Abigail of Joseph & Abigail Lowell born Feb. 4.
 Edward of John & Agnes Lux born Mar. 1.
 Richard of Richard & Elizabeth Loft born Mar. 14.
 Abigail of John & Elizabeth Morse born Mar. 30.
 Elizabeth of Francis & Elizabeth Morse born July 23.
 Elizabeth of Richard & Elizabeth Martin born July 25.
 Elizabeth of Thomas & Sarah Moore born Apr. 27.
 Sarah of James & Martha Mellows born Oct. 16.
 Richard of Richd & Experience Miles born Oct. 10.
 Felex dau. of James & Margery Maxwell born Sept. 22.
 Peter of Samuel & Kathar Mansell born Nov. 21.
 Benjamin of Edmund & Eliza. Mountfort born Feb. 19.
 Francis of Thaddeus & Eliza. Maccarty born Mar. 21.
 Joseph of George & Lydia Nowell born May 28.
 Tabitha of Edward & Catharine Naylor born July 2.
 Mary of John & Rebecca Nash born Nov. 26.
 Mary of Robert & Mary Nokes born Dec. 5.
 Mary of William & Susanna Norton born Feb. 5.
 Richard of Richard & Elizabeth Price born Mar. 26.
 Robert of William & Anne Pitts born Apr. 3.
 Joseph of George & Elizabeth Parson born Aug. 18.
 John of Nicholas & Philippa Phillips born May 3.
 Samuel of Samuel & Mary Peacock born June 2.
 Thomas of Nicholas & Hannah Phillips born Oct. 19.
 Kesiah of John & Kesiah Perkins born Oct. 7.
 Elizabeth of Seth & Dorothy Perry born Jan. 15.
 Mary of Robert & Rose Pegg born Jan. 17.
 Elizabeth of John & Judith Parmiter born Feb. 8.
 James of James & Martha Robinson born July 21.
 Mary of William & Susanna Rogers born Apr. 9.
 John of John & Ellener Sherrar born July 26.
 John of Thomas & Hannah Sherrar born Aug. 18.
 John of John & Sarah Starky born Sept. 23.
 Mary } of Jona & Mary Shrimpton born Oct. 30.
 Jona } of Jona & Mary Shrimpton born Oct. 30.
 Elizabeth of John & Tomasin Scarlet born Nov. 18.
 Elizabeth of Thomas & Mary Savage born Nov. 8.
 Nathaniel of John Junr. & Mary Sunderland born Nov. 17.
 John of John & Elizabeth Skinner born Jan. 22.
 Josiah of John & Martha Saffin born Jan. 31.
 Robert of Robert & Eliza. Sanford born Apr. 15.
 Elizabeth of Richard & Elizabeth Shute born Jan. 1.
 Daniel of Daniel & Mary Sutton born Feb. 19.
 Richard of John & Margaret Selly born Mar. 17.
 Elizabeth of Arthur & Jane Scovell born Mar. 18.
 Mary of Samuel & Mary Stocker born Apr. 25.
 Simon of John & Hannah Snell born Aug. 22.
 Benjamin of John & Martha Starr born Aug. 19.
 Hannah of Abijah & Hannah Savage born Aug. 27.
 Mary of Abijah & Hannah Savage born Aug. 27.
 Sarah of William & Sarah Towers born Apr. 16.
 Elizabeth of Francis & Rebecca Thomas born Sept. 25.
 Thomas of Richard & Martha Tewell born Oct. 17.
 Elizabeth of William & Rebecca Taylor born May 17.
 Thomas of Thomas & Mary Townsend born Dec. 10.
 Mary of William & Mary Tice born Sept. 4.
 Mary of Benjamin & Elizabeth Thurston born Feb. 11.
 Susanna of Peter & Lydia Townsend born Feb. 22.
 Samuel of John & Elizabeth Viall born Nov. 25.
 Mercy of John & Mercy Veren born Jan. 8.
 William of James & Mary Webster born Mar. 25.
 Elizabeth of Aaron & Jane Way born June 23.
 Mary of Thomas & Susanna Walker born July 30.

Elizabeth of John & Elizabeth Walley born July 28.
 Thomas of Thomas & Martha Waler born July 26.
 Elizabeth of Bartho & Amey Whitwell born June 6.
 Elizabeth of Nathaniel & Eliza. Woodward born June 10.
 Susanna of Thomas & Elizabeth Watts born July 1.
 Martha of John & Mary Winsor born Aug. 22.
 Mary of Sampson & Rebecca Waters born Aug. 28.
 John of Samuel & Joanna Ward born Sept. 27.
 Elizabeth of Thomas & Judith Woodward born June 24.
 Lydia of Joseph & Lydia Wheeler born Sept. 16.
 Joseph of James & Rebecca Whetcombe born Nov. 26.
 Joshabeth of John & Joshabeth Wing born Dec. 15.
 Elizabeth of Peter & Sarah Warren born Jan. 4.
 Mercy of Nathanll & Mary Woodward born Jan. 17.
 John of Lawrance & Hannah Waters born Feb. 10.
 Mehetable of Thomas & Eliza. Watkins born Feb. 14.
 Mercy of John & Eliza. Winsley born Feb. 14.
 Elizabeth of Thomas & Anne Williams born Feb. 6.
 John of John & Hannah Wiswall born Mar. 21.
 Elizabeth of William & Mary Whittingham born Dec. 24.

FIRST CHURCH.

Hannah of Jacob Eliot	24 day	1 mo.
James of Sister Andrewes	24 day	1 mo.
Robert of Robert Sanford	14 day	2 mo.
John of Sarah Franks	21 day	2 mo.
John of Sister Keyne	21 day	2 mo.
Jain of Sister Keyne	21 day	2 mo.
Abiel Evirell	28 day	2 mo.
John of John Aldin	28 day	2 mo.
Elizabeth of John Aldin	28 day	2 mo.
Samuel of Mrs. Hannah Lynde born 1 Dec. 1653	5 day	3 mo.
John of Mrs. Hannah Lynde born 9 Nov. 1657	5 day	3 mo.
Nathaniel of Mrs. Hannah Lynde born 22 Nov. 1659	5 day	3 mo.
Elizabeth of Mrs. Hannah Lynde born 25 Mar. 1662	5 day	3 mo.
Joseph of Mrs. Hannah Lynde born 2 Aug. 1664	5 day	3 mo.
Benjamin of Mrs. Hannah Lynde born 23 Sept. 1666	5 day	3 mo.
Zachary of John Aldin	19 day	3 mo.
Daniel of Collinell Seirle	2 day	4 mo.
Susanna of Mrs. Hinksman of Ch. at Dublin in Ireland	9 day	4 mo.
Samuel of Sister Brookin	16 day	4 mo.
Elizabeth of Nath. Harwood's wife	16 day	4 mo.
Mehetabel of Henry Philips	21 day	5 mo.
Christian of Sister Brookin	28 day	5 mo.
James of Sister Robinson	28 day	5 mo.

1668.

TOWN.

Samuel of John & Hannah Andrews born May 18.
 Elizabeth of Theodore Jr. & Eliza Atkinson born June 25.
 Mary of Edward & Martha Allen born Aug. 14.
 Elizabeth of John & Desire ye Truth Akers born Nov. 24.
 Thomas of William & Mehetable Anis born Feb. 10.
 Joseph of John & Martha Amey born Feb. 10.
 Timothy of Timothy & Joanna Armitage born Feb. 20.
 George of William & Elizabeth Browne born Apr. 5.
 Mary of Jeremiah & Anne Bumstead born May 30.
 Samuel of Francis & Jane Burges born July 5.
 John of Moses & Eliza. Bradford born Aug. 15.
 Mary of Thomas & Eliza. Brattle born Aug. 10.

Mary of Robert & Bathsheba Brunsdon born Sept. 22.
 Ephraim of Manassah & Mary Beck born Dec. 5.
 Ruth of Joseph & Lydia Belknap born Nov. 27.
 Deborah of George & Deborah Burrell born Dec. 17.
 Elizabeth of Joseph Buckminister born ———.
 Mary of John & Mary Briggs born Jan. 28.
 Elizabeth of Edward & Dorothy Budd born Mar. 6.
 Nicholas of Thomas & Mary Buttolph born Mar. 3.
 Jonathan of James & Sarah Balston born Mar. 21.
 Jeremiah of Jeremiah & Sarah Belcher born Oct. 31.
 Peter of Richard & ——— Bennet born Oct 1.
 Hannah of Thaddeus & Hannah Berry born Aug. 12.
 Mary of William & Martha Clarke born March 22.
 Sarah of Anthony & Hannah Checkley born June 18.
 Daniel of Ralph & Susanna Carter born July 12.
 John of Henry & Rebecca Cowley born Aug. 27.
 Edward of John & Hannah Cowell born Sept. 12.
 Hannah of John & Susanna Cole born Dec. 17.
 Alice of John & Sarah Clarke born Nov. 11.
 Samuel of John & Susanna Cross born March 18.
 Sarah of David & Obedience Copp born March 1.
 William of John & Margaret Courser born April 16.
 Mary of John & Elizabeth Coney born March 10.
 James of James & Frances Dawes born Apr. 13.
 Thomas of John & Mary Drury born Aug. 10.
 Elizabeth of Joseph & Elizabeth Davis born Dec. 13.
 William of Fathergon & Hannah Dinely born Dec. 1.
 Susanna of Ambrose & Mary Dawes born Mar. 19.
 John of John Junr. & Abigail Davenport born Feb. 22.
 James of John & Mary Ewell born Apr. 16.
 Mary of Benj. & Mary Emōns born Oct. 14.
 Mehetable of Thomas & Mary Eldridge born Nov. 23.
 Mary of Henry & Urseley Edwards born Mar. 10.
 James of James & Hannah Flood born Apr. 6.
 Mary of Henry & Mary Floyd born May 29.
 John of John & Eliza. Foster born July 31.
 John of Theophilus & Hannah Frarey born Dec. 11.
 John of John & Sarah Fayerweather born Jan. 22.
 Thomas of Thomas & Martha Fitch born Feb. 5.
 Rebecca of Jeremiah & Sarah Fitch born Feb. 19.
 Sarah of John & Sarah Franks born Feb. 26.
 Ann of Jesper & Elizabeth Frost born Mar. 7.
 Samuel of Francis & Mary (Negroes) born Mar. 17.
 Mary of Nathanll & Margaret Gallop borne June 25.
 Catharine of Thomas & Catharine Goodridge born June 17.
 Faith of Benjamin & Hannah Gillam born July 18.
 Henry of Robert & Elizabeth Gibbs born Oct. 8.
 Elizabeth of Thomas & Eliza. Gwinn born Oct. 16.
 Mary of William & Maria Gard born Feb. 22.
 Anna of William & Eliza. Greenough born Feb. 21.
 Eleazer of John & Mary Gilbert born Mar. 1.
 Jane of Thomas & Dorothy Grecian born Feb. 28.
 Bethiah of Believe & Anna Gridley born Mar. 17.
 Hannah of John & Hannah Greenleaf born Oct. 5.
 Jonathan of George & Sarah Hollard born March 15.
 Elizabeth of Jabez & Experience Heaton born Apr. 15.
 Ann of William & Dorothy Hawkins born May 17.
 Mary of Israel & Anne Howe born May 18.
 Thomas of Thomas & Abigail Hatherly born July 1.
 Eleazer of James & Mary Hudson born June 19.
 John of Nicholas & Eliza. Howard born June 29.
 Naomi of John & Naomi Henley born Nov. 11.
 Ignatius of James & Hannah Hill born Nov. 6.
 Elizabeth of John & Mary Hill born Nov. 10.

Richard of Eliakim & Sarah Hutchinson born & died Jan. 13.
Phoebe of John & Mary Holman born Jan. 15.
Mary of William & Mary Hamken born Jan. 17.
William of William & Anne Hobby born Feb. 9.
Hannah of Henry & Eliza. Harwood born Jan. 17.
James of James & Eliza. Hewes born Feb. 7.
Elizabeth of William & Mary Ingram born Feb. 1.
William of John & Elizabeth Jones born June 19.
Samuel of John & Jane Johnson born Apr. 15.
Joseph of Edward & Elizabeth Jones born Oct. 9.
Edmond of Edmond & Eliza. Jackson born Oct. 5.
Elizabeth of Jonathan & Eliza. Jackson born Feb. 16.
William of Samuel & Hannah King born Apr. 13.
David of Richard & Joanna Knight born Apr. 7.
Giles of Henry & Mary Kemble born July 14.
Rebecca of Thomas & Eliza. Kemble born July 12.
Richard of Richard & Julian Knight born Oct. 18.
John of John & Mary Kneeland born Nov. 29.
John of Thomas & Abigail Kellond born Feb. 13.
James of James & Elizabeth Laydon born Apr. 12.
John of John & Elizabeth Langburrô born Apr. 18.
Nathaniel of Thomas & Mary Lake born July 18.
John of John & Sarah Leveret born Aug. 20.
Simon of Simon & Hannah Lynde born Oct. 8.
James of Joseph & Abigail Lowell born Mar. 27.
Elizabeth of Thomas & Rachel Martin born Apr. 10.
Elizabeth of Samuel & Mary Meers born Apr. 9.
Bethiah of Simeon & Bethiah Messenger born May 24.
Margaret of Christopher & Prudence Morse born May 19.
Alice of Arthur & Joanna Mason born June 26.
Elizabeth of James & Elizabeth Meers born Aug. 1.
Zacheus of Samuel & Caylance Matlock born Sept. 15.
Abigail of John & Mary Matson born Oct. 19.
Thomas of Samuel & Mary Mason born Dec. 6.
Ruth of John & Elizabeth Morse born Jan 13.
Thomas of Thomas & Mary Matson born Jan. 13.
Sarah of George & Hannah Manning born Mar. 19.
William of Robert & Hannah Mokum born Mar. 14.
Ruth of Richard & Ruth Newport born Apr. 27.
Lydia of Edward & Catharine Nailor born July 26.
Andrew of Andrew & Mellicent Neale born Nov. 25.
Mary of Robert & Sarah Orchard born Mar. 26.
Nathaniel of John & Elizabeth Olden born July 9.
Susanna of John & Susanna Oliver born Aug. 27.
Margaret of Elisha & Abigail Odlin born Feb. 26.
Mehetable of Daniel & Sarah Phippen born Apr. 27.
Sarah of John & Ruth Pearse born June 1.
Hannah of John & Deliverance Pollard born Aug. 15.
Mary of James & Mary Penniman born Sept. 17.
Ruth of Ezekiel & Ruth Padner born Sept. 12.
Jonathan of James & Sarah Pemberton born Aug. 28.
William of Tobias & Sarah Paine born Jan. 21.
Richard of Samuel & Mary Peacock born Jan. 22.
John of Elias & Sarah Parkman born Jan. 24.
John of Henry & Mary Phillips born Jan. 22.
John of Timothy & Deborah Pratt born Feb. 23.
David of William & Ann Pollard born Apr. 18.
Mary of Nathanll & Damaris Robinson born June 22.
Edward of Jonathan & Mary Rainsford born June 27.
John of Nathanll & Priscilla Reynolds born Aug. 4.
Ann of Thomas & Temperance Smith born Apr. 29.
Mary of Anthony & Christian Stoddard born Mar. 25.
Samuel of Clement & Joanna Salmon born Apr. 5.
Samuel of John Senr & Tomasin Sunderland born Apr. 14.

Joseph of John & Sarah Skeath born June 9.
 John of John & Rebecca Scottow born June 25.
 Nathaniel of Nathaniel & Mary Sherman born June 15.
 Martha of Robert & Elizabeth Smith born July 2.
 Thomas of Thomas Junr. & Eliza. Savage born Aug. 2.
 Sarah of Pilgrim & Cathar. Symkins born Sept. 21.
 Silence of Henry & Mary Stevens born July 26.
 Samuel of Col. Danl. & Deliverance Searle born Oct. 16.
 Martha of William & Martha Smith born Jan. 16.
 Mary of John & Sarah Stanbury born Feb. 14.
 Thomas of Joseph & Elizabeth Soper born June 8.
 Elizabeth of Capt. Thos. & Mary Savage born Feb. 24.
 Joseph of Comfort & Mary Starr born Mar. 7.
 Lydia of Paltiel & Lydia Sconer born July 8.
 Grizzell of Philip & Rachel Squire born May 14.
 Ann of Thomas & Ann Shapcot born Jan. 18.
 Mary of Henry & Mary Taylor born June 6.
 Hannah of Stephen & Hannah Taylor born July 2.
 Hannah of John & Joanna Turner born July 15.
 Abigail of William & Leah Towers born Aug. 19.
 Martha of John & Sarah Tuckerman born Aug. 28.
 Jonathan of Samuel & Abigail Townsend born Sept. 10.
 John of Daniel & Esther Trenis born Oct. 2.
 William of James & Martha Talbot born Dec. 26.
 Mary of William & Eliza Talmage born Jan. 13.
 Nathaniel of John & Sarah Tomlin born Jan. 18.
 Benjamin of Richard & Eliza. Tout born Sept. 16.
 Ruth of Thomas & Ruth Weybourn born Apr. 22.
 Thomas of John & Mary Weybourn born Sept. 13.
 Susanna of Thomas & Elizabeth Wales born Sept. 8.
 Ellener of Leonard & Ellener Wheatly born Aug. 8.
 Sarah of John & Jane Williams born Nov. 28.
 Elizabeth of William & Joanna Williams born Jan. 4.
 John of John & Lydia Watts born Jan. 22.
 John of John & Deliverance Wakefield born Jan. 27.
 Richard of William & Mary Whittingham born Jan. 18.
 John of Thomas & Susanna Walker born Feb. 2.
 Constance of William & Constance Woster born Mar. 10.
 Mary of Thomas & Esther Woodward born Jan. 13.

FIRST CHURCH.

John of Sister Kneeland	13 day 10 mo.
Manasse of Sister Becke	13 day 10 mo.
Ann of Samuel Mason	13 day 10 mo.
John of Theophelous Frary	20 day 10 mo.
Elizabeth of Joseph Davis	20 day 10 mo.
Ann of Thomas Matson	17 day 11 mo.
Martha of Martha & William Smyth	17 day 11 mo.
John of Henry Philips	24 day 11 mo.
John of Deliverance & John Wakfield	31 day 11 mo.
Mary of William Talmage	31 day 11 mo.
Thomas of Thomas Fitch	7 day 12 mo.
Mehitabel of Mary Eldrige	7 day 12 mo.
Rebecca of Jeremiah Fitch's wife	22 day 12 mo.
Jeremiah of Jeremiah Belcher's wife	28 day 12 mo.
Elizabeth of Thomas Savage	28 day 12 mo.
Sarah of John Franks' wife	28 day 12 mo.

1669.

TOWN.

Ellener of Joshua & Mary Atwater born Apr. 23.
 Hannah of Thomas & Elizabeth Allin born June 21.
 William of John & Elizabeth Alden born Sept. 10.
 Theodore of Theodore & Elizabeth Atkinson born Oct. 3.
 Samuel of Samuel & Hopestill Austins born Oct. 8.
 Henry of Henry & Mary Adams born Jan. 15.
 Jane of Abraham & Sarah Adams born Feb. 22.
 Samuel of Samuel & Sarah Alcock born Mar. 2.
 Rebecca of Samuel & Sarah Bucknell born Mar. 30.
 Elizabeth of William & Elliner Baker born Mar. 29.
 David of John & Hannah Buttolph born May 7.
 Grace of Thomas & Grace Berry born June 1.
 Jonathan of William & Hannah Ballentine born Sept. 19.
 Richard of Free Grace & Mary Bendall born Sept. 10.
 Jacob of Thomas & Abigail Bell born Oct. 31.
 Sarah of Robert & Mary Brickenton born Sept. 3.
 Mary of James & Hannah Braden born Jan. 11.
 Mary of John & Elizabeth Brookin born Jan. 20.
 Sarah of John & Agnes Bowden born Jan 28.
 John of Phillip & Judith Bullis born Jan. 8.
 Edward of Josias & Ranis Belcher born Jan. 19.
 Rebecca of Benja. & Sarah Brisco born Feb. 20.
 Mary of Robert & Elizabeth Burgis born Jan. 14.
 Elizabeth of Robert & Priscilla Blumfield born Mar. 16.
 Mehetable of John & Mary Bull born Jan. 1.
 Samuel of Samuel & Mary Browne born Jan. 1.
 Edward of Jeremiah & Sarah Belcher born Feb. 14.
 Thomas of Thomas & Esther Brental born Nov. 1.
 Augustine dau. of Samuel & Deborah Clement born Apr. 2.
 Elizabeth of Ezekiel & Mercy Corneth born May 3.
 Sarah of Edward & Sarah Cowell born Apr. 3.
 John of John & Mary Clough born Apr. 11.
 Abigail of Robert & Penelope Cooke born July 11.
 Anthony of Josiah & Waitawhile Cooper born June 28.
 Ann of John & Anne Checkley born Aug. 4.
 Mary of John & Hannah Cowell born Nov. 20.
 William of William & Mary Caswell born Dec. 15.
 Rebecca of Henry & Rebecca Cooley born Nov. 25.
 Union son of David & Lydia Chapin born Dec. 23.
 Martha of Joseph & Martha Cox born Mar. 3.
 Joseph of Joseph & Abigail Dudson born July 11.
 Hannah of Edward & Hannah Davis born Sept. 12.
 Nathaniel of Samuel & Sarah Davis born Nov. 26.
 Mary of Anthony & Elizabeth Davis born May 3.
 Thomas of Joseph & Rebecca Dudley born Feb. 26.
 Sarah of William & Mary Dier born Feb. 17.
 Joseph of Capt. Wm. & Huldah Davis born Sept. 3.
 Rebecca of Obadiah & Rachel Emõns born Apr. 19.
 Margaret of Robert & Hannah Earle born July 18.
 Nathaniel of Samuel & Mary Emõns born Feb. 9.
 Benjamin of Benja. & Mary Emõns born Jan. 24.
 Daniel of Thomas & Sarah Edwards born Mar. 16.
 Lydia of Edward & Lydia Ellis born Mar. 15.
 Samuel of William & Phoebe Eglen born Mar. 14.
 Jane of John & Elizabeth Freake born Oct. 26.
 Elizabeth of Hopestil & Elizabeth Foster born July 26.
 John of John & Mehetable Frost born Jan. 9.
 Elizabeth of Edward & Mary Farnham born Feb. 5.
 Richard of James & Rebecca Green born Apr. 7.

Isaac of Isaac & Mary Goose born May 5.
 Anna of Nathanll & Mary Greenwood born Apr. 7.
 John of John & Ruth Gwinn born Aug. 2.
 Edmund of Clement & Anna Gross born Sept. 26.
 Lydia of Benja. & Lydia Gibbs born Jan. 26.
 Thomas of Stephen & Sarah Gates born Dec. 31.
 Elizabeth of Peltiel & Lydia Grover born Feb. 13.
 Mary of Joseph & Sarah Hurd born Apr. 29.
 William of Daniel & Sarah Henschman born July 28.
 Mary of Thomas & Mary Hutchins born Apr. 13.
 Elizabeth of John & Elizabeth Harris born Sept. 7.
 Mercy of Ezekiel & Elizabeth Hamlin born Sept. 5.
 Benjamin of Charles & Margaret Hopkins born Aug. 21.
 John of John & Elizabeth Hopper born Sept. 7.
 Mary of James & Dinah Halsey born Jan. 2.
 Susanna of John & Joanna Hare born Jan. 29.
 Ruth of Joseph & Frances How born Mar. 4.
 Elizabeth of Elisha & Hannah Hutchinson born Feb. 24.
 Joanna of John & Joanna Henlock born Feb. 27.
 Jane of James & Joanna Ingles born Mar. 31.
 Anna of James Junr. & Anna Johnson born May 29.
 Job of Samuel & Elizabeth Judkin born Sept. 24.
 Abigail of Henry & Mary Kemble born Oct. 13.
 John of Joseph & Mary Knight born Jan. 19.
 Henry of Thomas & Eliza. Kemble born Mar. 14.
 Samuel of John & Naomi Lowell born Aug. 1.
 Martha } of John & Agnes Lux born Sept. 20.
 Mary } of John & Agnes Lux born Sept. 20.
 Elizabeth of Richard & Elizabeth Loft born Feb. 24.
 Samuel of Samuel & Deliverance Legg born Mar. 16.
 Persis of Thomas & Ann Maynel born June 3.
 Nathaniel of Increase & Maria Mather born July 6.
 Samuel of John & Ruth Marshall born July 14.
 Elizabeth of Robert & Sarah Mason born July 29.
 Sarah of Return & Sarah Manning born Apr. 7.
 Thomas of Thomas & Sarah Moore born Sept. 2.
 John of John & Sarah Marsh born Aug. 29.
 Mary of Francis & Anna Morss born Sept. 26.
 Hannah of Francis & Anna Morss born Sept. 26.
 John of Samuel & Constance Mattock born Sept. 14.
 Mary of Daniel & Mary Matthews born Oct. 3.
 Abigail of Richard & Elizabeth Martin born Nov. 14.
 Deliverance dau. of James & Margaret Maywell born Jan. 15.
 Mary of John & Martha Mellows born Mar. 19.
 Edward of James & Eliza. Meeres born Mar. 22.
 Elizabeth of Dego (negro) & Hagar Muntero born Oct. 1.
 George of George & Lydia Nowell born Feb. 15.
 Mary of Samuel & Eliza. Nordin born Mar. 22.
 Mary of William & Mary Okinton born Sept. 7.
 Samuel of Samuel & Mary Pettifur born May 28.
 John of Nicholas & Philippa Phillips born June 21.
 George of Edward & Elizabeth Pullin born July 22.
 John of William & Elizabeth Pickerin born Apr. 17.
 Joseph of Zechariah & Elizabeth Phillips born Sept. 4.
 Thomas of George & Elizabeth Pearson born Oct. 30.
 Margaret of Robert & Margaret Peard born Dec. 20.
 Robert of Robert & Rose Pegge born Jan. 19.
 Mary of William & Hopestill Pitts born ult. Feb.
 Elizabeth of Obadiah & Anna Read born Mar. 29.
 John of John & Mary Rice born May 9.
 Edward of John & Susanna Rainsford born Apr. 21.
 Ann of Simon & Christian Roberts born July 18.
 Elizabeth of William & Ruth Read born Apr. 22.
 John of Samuel & Margaret Ruck born Aug. 17.

Grace of William & Elizabeth Robins born Sept. 19.
 Elizabeth of Richard & Elizabeth Randall born Nov. 6.
 Elizabeth of John & Alice Ratcliffe born Jan. 1.
 Elizabeth of Robert & Eliza. Reynolds born Jan. 2.
 Mary of John & Elizabeth Russell born Sept. 15.
 John of Humphrey & Mehetable Richards born Apr. 1.
 John of John & Hannah Stiles born Mar. 31.
 Hannah of Bartho. & Hannah Sutton born Apr. 12.
 Moses of Thomas & Mary Saxton bore May 31.
 Elizabeth of Nicholas & Elizabeth Stevens born June 21.
 Jane of Anthony & Christian Stoddard born July 29.
 Hannah of Thomas & Hannah Sherrar born Aug. 6.
 Thomas of Edward & Mary Stevens born Apr. 15.
 Thomas of Thomas & Temperance Smith born Aug. 1.
 Deliverance of William & Hannah Sumner born Mar. 18.
 Elizabeth of Thomas & Judith Snowsell born Sept. 8.
 William of John & Emme Stepson born Sept. 4.
 Sarah of Jonathan & Mary Shrimpton born Nov. 29.
 John of Laomi & Deborah Simpson born Dec. 3.
 Joseph of John & Elizabeth Skinner born Jan. 8.
 Joseph of John & Martha Saffin born Feb. 2.
 Thomas of Thomas & Susanna Stanbury born Jan. 17.
 Elizabeth of Philip & Rachel Squire born Feb. 2.
 Mary of Comfort & Mary Starr born Mar. 14.
 Joseph of John & Sarah Snemy born Oct. 10.
 Nicholas of John & Ellener Shern born May 14.
 Abigail of Ephraim & Sarah Turner born June 8.
 Buny son of Bernard & Mary Trott born June 20.
 Humphrey of Daniel & Mary Turell born Sept. 10.
 Hannah of John & Joanna Turner born Sept. 30.
 Francis of Jonathan & Sarah Tyng born Dec. 11.
 Susanna of Peter & Lydia Townsend born Feb. 20.
 Elizabeth of Henry & Eliza. Thomson born Jan. 29.
 John of Benja & Elishua Thurston born Mar. 15.
 Elizabeth of John & Elizabeth Usher born June 18.
 Edward of Edward & Jane Urin born June 2.
 Joseph of John & Mercy Verin born Mar. 12.
 Joseph of Thomas & Hannah Wheeler born Mar. 31.
 Mary of William & Mary Whitwell born Mar. 28.
 Priscilla of Deane & Sarah Winthrop born May 1.
 John of John & Eliza. Winslow born May 22.
 William of Thomas & Mary Walker born May 24.
 Susanna of Thomas & Ann Williams born June 1.
 Martha of John & Mary White born July 7.
 John of Robert & Rebecca Winsor born Apr. 22.
 Jane of Thomas & Rebecca Whetcombe born Aug. 31.
 Edward of Edward & Eliza. Winslow born Nov. 1.
 Rachel of John & Mary Williams born Dec. 15.
 Martha of Isaac & Dorcas Woodde born Nov. 12.
 Joseph of Joseph & Lydia Waler born Feb. 3.
 Joseph of Joseph & Lydia Williams born Feb. 14.
 Ebenezer of John & Joshabeth Wing born Oct. 15.
 William of Sampson & Rebecca Waters born Mar. 3.
 Eleazer of Samuel & Joanna Ward born Feb. 17.

FIRST CHURCH.

John of John Davenport Junr	21 day	1 mo.
Elizabeth of Theodore Atkinson's wife	21 day	1 mo.
Susanna of Ambrose Dawes' wife	21 day	1 mo.
Sarah of George Manning's wife	21 day	1 mo.
Richard of Robert Sanford	28 day	1 mo.
Jonathan of Jonathan Balsto's wife	28 day	1 mo.

William of Richard Gibbs' wife	28 day	1 mo.
Hezekiah of James Burges' wife	4 day	2 mo.
Rebecca of John Bucknell's wife	4 day	2 mo.
Elizabeth of Sister Winsor	25 day	2 mo.
John of William Read	25 day	2 mo.
Priscilla of Deane Winthrop's wife	16 day	3 mo.
John of John Clough	6	Jun.
Samuel of John Marshall's wife	18 day	5 mo.
Hannah of James Allen Teacher	25 day	5 mo.
Jaine of Anthony Stoddard	1 day	6 mo.
William of Mr. Hinchman	1 day	6 mo.
Ann of John Chickly	8 day	6 mo.
Samuel of John Looell	8 day	6 mo.
Ann of Tho: Sheares' wife	22 day	6 mo.
Pitford of Freegrace Bendall	12 day	Sept.
Humphrey of Daniel Turant's wife	12 day	Sept.
Hannah of Edward Davis	25 day	7 mo.
Simon of Simon Broodstreet	24 day	8 mo.
John of Samuel Mattock	24 day	8 mo.
Theodore of Theodore Atkinson Junr	31 day	8 mo.
Thomas of Mrs. Person	31 day	8 mo.
Mary of John Cowell's wife	21 day	9 mo.
Vnion daughter of David Chapin	19 day	10 mo.
Mary of Sister Brookin	23 day	11 mo.
John of James Mackwell	23 day	11 mo.
Deliverance of Sister Knight	23 day	11 mo.
Joseph of Mr. Saffan	6 day	12 mo.
Nathaniel of Mary Emins	13 day	12 mo.

1670.

TOWN.

Martha of Angola (negro) & Elizabeth born Apr. 16.
 Thomas of Eleazer & Hanna Armitage born Aug. 3.
 James of James & Elizabeth Allin born Aug. 20.
 John of Hope & Mary Allin born Nov. 24.
 Ebenezer of William & Rebecca Allin born Sept. 25.
 Mercy of Edward & Patience Blake born Mar. 26.
 William of Ambrose & Mary Bennet born May 21.
 Thomas of Joseph & Hannah Belknap born June 29.
 Samuel of Samuel & Mercy Bosworth born July 9.
 Elizabeth of Robert & Elizabeth Butcher born July 29.
 Elizabeth of Robert & Bathsheba Bronsden born Aug. 27.
 Mary of Robert & Bathsheba Bronsden born Aug. 27.
 Rachel of George & Pearne Broughton born Sept. 1.
 Ann of Samuel & Martha Bradstreet born Sept. 3.
 Elizabeth of John & Elizabeth Barnes born Sept. 7.
 James of John & Mary Bohannon born Oct. 20.
 Jacob of Jacob & Sarah Bowry born Sept. 15.
 Jeremiah of Jeremiah & Anna Bumstead born Nov. 25.
 Elizabeth of Nathanll & Judith Blague born Dec. 5.
 Edward of Thomas & Elizabeth Brattle born Dec. 18.
 Ephraim of Manassah & Mary Beck born Dec. 28.
 Mary of Samuel & Sarah Bucknel born Dec. 16.
 Hannah of John & Hannah Buttolph born Jan. 15.
 Moses of Moses & Eliza. Bradford born Nov. 24.
 Newcombe of Phillip & Susanna Blague born Jan. 27.
 Alexander of William & Ellener Baker born Feb. 8.
 Jeremiah of John & Sarah Buckman born Feb. 5.
 Ezekiel of Ezekiel & Rebecca Brisco born Feb. 23.
 Elizabeth of Abraham & Abigail Busby born Dec. 27.

Thomas of Thaddeus & Hannah Berry born Sept. 20.
Joanna of William & Ellen Clarke born Aug. 22.
Jonathan of Jona & Margaret Copp born Apr. 6.
Elizabeth of Ralph & Susanna Carter born May 9.
Rebecca of John & Elizabeth Coney born June 18.
Samuel of Samuel & Deborah Clement born July 18.
Sarah of Edward & Sarah Cowell born July 29.
Jeremiah of John & Mary Cotton born July 17.
Elisha of Elisha & Elizabeth Cooke born Aug. 18.
Mary of John & Margaret Coaser born Aug. 22.
Thomas of John & Sarah Clarke born Sept. 22.
Joanna of John & Joanna Carthew born Jan 9.
William of John & Martha Clarke born Dec. 19.
Ebenezer of Timothy & Philippe Cunnell born Feb. 15.
John of John & Mary Chanterell born ult. Feb.
Robert of Robert & Sarah Cooke born Dec. 9.
John of John & Anne Dinsdall born Apr. 20.
Lydia of John and Mary Drury born July 11.
Addington of Eleazer & Rebecca Davenport born Aug. 3.
Mercy of Anthony & Elizabeth Davis born Dec. 12.
Elizabeth of Hicks & Sarah DANNYNeg born Dec. 18.
Robert of John & Dorothy Downes born Feb. 10.
Abigail of Joseph & Elizabeth Davis born ——.
Abraham of John & Abiall Davenport born Mar. 18.
Richard of John & Bridget Davenport born Nov. 13.
Joanna of Henry & Joanna Ellis born May 8.
James of Henry & Ursely Edwards born June 2.
David of William & Sarah Eastis born May 31.
John of Thomas & Mary Eldredge born Nov. 12.
James of James & Susanna Ellis born Nov. 23.
Samuel of Robert & Hannah Earle born Mar. 10.
Elizabeth of John & Elizabeth Endecott born Dec. 17.
John of John & Sarah Fayrweather born Apr. 8.
Richard of James & Hannah Flood born June 8.
Thomas of Thomas & Margaret Forbush born July 8.
Prudence of Theophilus & Hannah Frarey born Aug. 23.
Esther of Jeremiah & Sarah Fitch born Sept. 29.
Thomas of John & Susanna Farnham born Sept. 17.
Mehetable of John & Elizabeth Freake born Oct. 5.
Mary of Samuel & Anne Flacke born Mar. 12.
Elizabeth of Richard & Mary George born Apr. 8.
Christian dau. of William & Mary Gard born May 31.
William of William & Sarah Gibson born Mar. 26.
Mehetable of John & Mary Gilbert born Aug. 27.
Patience of Henry & Mary Gidley born Oct. 13.
John of Matthew & Ellener Gross born Sept. 11.
Mary of John & Hannah Greenleafe born Jan. 23.
Thomas of Jonathan & Mary Gatlief born Feb. 10.
William of William & Ruth Greenough born Feb. 20.
Anna of Clement & Anna Gross born Mar. 18.
Mary of Eliphalet & Anne Hill born Apr. 1.
Elizabeth of William & Dorothy Hawkins born Apr. 1.
Richard of Eliakim & Sarah Hutchinson born Apr. 18.
Elizabeth of James & Hannah Hill born June 15.
Margaret of George & Sarah Hollard born June 23.
Mary of John & Joanna Howen born July 4.
Robert of Robert & Sarah Haughton born July 18.
Mary of James & Sarah Hains born July 4.
Hannah of Joseph & Sarah Hurd born Aug. 4.
Ann of William & Anne Hobby born Sept. 9.
Abigail of George & Sarah Hisket born ——.
John of John & Elizabeth Harris born Dec. 27.
Abigail of Thomas & Abigail Hatherly born Sept. 8.
Samuel of George & Hannah Henley born Jan. 9.

- William of William & Hannah Hoare born Feb. 1.
 Experience of Jabez & Experience Heaton born Nov. 27.
 Robert of Israel & Anne Howen born Jan. 1.
 Mary of John & Susanna Howlet born Jan. 22.
 John of James & Dinah Halsy born Mar. 1.
 Nathaniel of John & Rebecca Jarvis born May 25.
 Phoebe of Samuel & Phoebe Johnson born Aug. 30.
 Mary of Jonathan & Elizabeth Jackson born Dec. 3.
 Jacob of Jacob & Elizabeth Jesson born Dec. 18.
 Samuel of Samuel & Hannah Johnson born Jan. 24.
 Edward of Samuel & Mary Jenkins born Mar. 18.
 Rachel of Richard & Julian Knight born May 25.
 Thomas of Thomas & Abigail Kellond born July 18.
 Solomon of John & Mary Kneeland born Feb. 7.
 John of John & Ursula Lawrance born April 16.
 Thomas of Symon & Hannah Lynde born May 19.
 Rebecca of Thomas & Mary Lake born July 6.
 Margaret of Zebulon & Rachel Letherland born July 4.
 Sarah of John & Sarah Leveret born June 30.
 Samuel of John & Naomi Lowell born Jan. 30.
 John of Edmund & Eliza. Mountfort born Mar. 28.
 Martha of Peter & Martha Maverick born Feb. 8.
 Francis of Samuel & Naomi Moore born July 15.
 Elizabeth of Samuel & Constance Mattock born Aug. 18.
 Benjamin of John & Sarah Marion born Aug. 25.
 Thaddeus of Thaddeus & Eliza. Maccarty born Sept. 12.
 Lydia of John & Lydia Mane born Sept. 26.
 Rebecca of Return & Sarah Manning born Sept. 21.
 Bethiah of John & Grace Matthews born Jan. 2.
 John of John & Mary Messenger born Jan. 2.
 Bethiah of John & Elizabeth Morse born Jan. 13.
 Joseph of John & Sarah Marsh born Feb. 3.
 John of Richard & Sarah Mason born Mar. 9.
 Anna of John & Kathar Maverick born Sept. 21.
 William of William & Susanna Norton born July 8.
 Robert of Robert & Mary Noakes born July 10.
 Elizabeth of Andrew & Mellicent Neale born Aug. 2.
 Abigail of Elisha & Abigail Odlin born April 5.
 Hannah of John & Susanna Oliver born July 13.
 Samuel of Samuel & Mary Peacock born Mar. 26.
 Rachel of John & Kesia Perkins born Mar. 27.
 Ell: of John & Ruth Pearse born Apr. 15.
 Edward of Richard & Abigail Patishall born Apr. 27.
 Robert of Robert & Sarah Petty born Apr. 14.
 John of Henry & Mary Phillips born July 9.
 Samuel of Samuel & Elizabeth Paine born Aug. 26.
 John of John & Judith Parmiter born Oct. 31.
 Elizabeth of Elias & Sarah Parkman born Dec. 29.
 William of John & Deliverance Pollard born Feb. 1.
 Ann of Thomas & Esther Platts born Feb. 28.
 Tabitha of John & Joanna Porter born Dec. 13.
 Hannah of John & Mary Pell born Mar. 24.
 Zachariah of Timothy Junr. & Deborah Prout born Mar. 20.
 Abigail of Roger & Abigail Rose born Apr. 25.
 Nathaniel of Solomon & Priscilla Rainsford born Dec. 28.
 Benjamin of John & Christian Roberts born Jan. 8.
 Peter of Nathanll & Priscilla Reynolds born Jan. 26.
 Ann of Robert & Elizabeth Reynolds born Aug. 11.
 Catharine of Bartho & Eliphal Sutton born Apr. 15.
 Richard of Robert & Elizabeth Sandford born Mar. 27.
 James of Arthur & Joanna Scovell born June 13.
 Benjamin of John & Sarah Sloth born July 11.
 William of Richard & Elizabeth Shute born Oct. 1.
 John of John & Margaret Selly born Sept. 22.

Sarah of Francis & Mary Skinner born Nov. 24.
 Mary of Thomas & Mary Skinner born Oct. 4.
 Grace of Christopher & Agnes Skinner born Oct. 30.
 Samuel of Joseph & Elizabeth Souther born Dec. 9.
 James of William & Martha Smith born Feb. 9.
 Samuel of Joseph & Elizabeth Soper born Oct. 18.
 Elizabeth of Stephen & Dorothy Sergeant born Apr. 12.
 Mary of Joseph & Sarah Shaw born Mar. 1.
 Martha of Samuel & Mary Stocker born Sept. 12.
 Elizabeth of Richard & Martha Tewell born Apr. 3.
 James of Thomas & Mary Thompson born Apr. 10.
 Benjamin of Benjamin & Abigail Thwing born July 24.
 Sarah of John & Sarah Tucker born Apr. 19.
 Damaris of Bartho & Damaris Thredneedle born Oct. 26.
 Ephraim of Ephraim & Sarah Turner born Nov. 23.
 Mary of Samuel & Abigail Tompson born Dec. 3.
 Sarah of William & Leah Towers born Dec. 12.
 Henry of Henry & Mary Taylor born Oct. 12.
 Abigail of Benja. & Susanna Thompson born Nov. 29.
 Elizabeth of Jona. & Sarah Tyng born Dec. 28.
 John of John & Maria Thwing born Oct. 16.
 Henry of Bernard & Mary Trott born Jan. 18.
 Abraham of John & Sarah Tuckerman born Dec. 3.
 Elizabeth of John & Elizabeth Viall born Apr. 6.
 Jonathan of Isaac & Mary Vergoose born July 23.
 Nathaniel of Benja. & Rachel Williams born Apr. 13.
 Mary of John Jr. & Hannah Wiswall born Apr. 21.
 Rebecca of Joseph & Mary Wheler born Apr. 10.
 Elizabeth of James & Mary Webster born May 14.
 Nathaniel of John & Elizabeth Warren born May 27.
 Edward of Edward & Ruth Willis born July 5.
 Ann of John & Elizabeth Winslow born Aug. 7.
 Martha of William & Mary Whittingham born July 24.
 William of William & Mary Whitwell born Sept. 26.
 Thomas of Thomas & Ruth Weybourne born Sept. 6.
 Mary of John & Anna Williams born Oct. 2.
 Elizabeth of John & Elizabeth White born Nov. 25.
 Mary of John & Mary Wyborne born Dec. 9.
 Mary of Thomas & Mary Waler born Dec. 31.
 Robert of Peter & Sarah Warren born Dec. 14.
 Samuel of John & Elizabeth Walley born Feb. 1.
 Joseph of Thomas & Elizabeth Watkins born Jan. 15.
 Joseph of Thomas & Susanna Walker born Feb. 19.
 Rebecca of John & Lydia Watts born Feb. 22.
 James of William & Johanna Williams born Sept. 18.
 Elizabeth of Thomas & Susanna Wagget born Oct. 13.
 Joseph of James & Mary Worden born Mar. 21.

FIRST CHURCH.

Samuel of Mrs. Alcock of Ch. of Cambridge	6 day	1 mo.
Ruth of Joseph How	6 day	1 mo.
Marah of Samuel Norden	27 day	1 mo.
Elizabeth of Mrs. Tompson of Ch. of Cambridge	27 day	1 mo.
Elizabeth of John Viall	10 day	2 mo.
John of John Clough	24 day	2 mo.
John of Mary & Hudson Leveret	8 day	3 mo.
Bezaliell of Mary & Hudson Leveret	8 day	3 mo.
Mary of Mary & Hudson Leveret	8 day	3 mo.
Elizabeth of Mrs. Noushzwel	8 day	3 mo.
Ann of Ann Linde	22 day	3 mo.
{ Joseph of sister Simmons now wife of John Button	22 day	3 mo.
{ Mary of sister Simmons now wife of John Button	22 day	3 mo.

{ Thomas of Sarah & John Fayerweather	12 day 4 mo.
{ Penellopye of Sarah & John Fayerweather	12 day 4 mo.
{ John of Sarah & John Fayerweather	12 day 4 mo.
{ Darlow of Ephraim Turner's wife	12 day 4 mo.
{ Robert of Ephraim Turner's wife	12 day 4 mo.
{ Sarah of Ephraim Turner's wife	12 day 4 mo.
Hannah of John Turner's wife	12 day 4 mo.
Hannah of Mary & John Hill	12 day 4 mo.
Elizabeth of John Usher	19 day 4 mo.
Sarah of Mai ^r Leveret	3 day 5 mo.
John of Henry Philips	10 day 5 mo.
{ Satisfaction of Mary Belcher	31 day 5 mo.
{ Faith of Mary Belcher	31 day 5 mo.
{ Mercy of Mary Belcher	31 day 5 mo.
Lydia of Lydia & John Drury	31 day 5 mo.
Samuel of John Warrin	14 day 6 mo.
John of John Warrin	14 day 6 mo.
Nathaniel of Lydia & Nathaniel Williams	14 day 6 mo.
James of James Allen Teacher	21 day 6 mo.
{ Joseph of Abigail Looell	21 day 6 mo.
{ James of Abigail Looell	21 day 6 mo.
{ Hannah of Abigail Looell	21 day 6 mo.
Elizabeth of Constance & James Mattocke	21 day 6 mo.
Hester Lockston aged 20 years	28 day 6 mo.
Benjamin of John Meriam	4 day 7 mo.
{ Temperance of Temperance Smith	9 of Oct.
{ Robert of Temperance Smith	9 of Oct.
{ Edmund of Elizabeth Mumford	9 of Oct.
{ Henry of Elizabeth Mumford	9 of Oct.
{ Benjamin of Elizabeth Mumford	9 of Oct.
{ John of Elizabeth Mumford	9 of Oct.
{ Elizabeth of Elizabeth Mumford	9 of Oct.
John of Lydia Parmeter	6 day 9 mo.
John of Hope Allen's wife	20 day 9 mo.
Moses of Moses Bradford	26 day 9 mo.
Ephraim of Ephraim Turner's wife	26 day 9 mo.
Ephraim of Manasse Beck's wife	1 day 11 mo.
Elizabeth of Abigail & Abram Busby	1 day 11 mo.
George of Lydia & George Newell	22 day 11 mo.
Michael of Lydia & George Newell	22 day 11 mo.
Joseph of Lydia & George Newell	22 day 11 mo.
Hannah of Lydia & George Newell	22 day 11 mo.
Peter of Nathl. Renold	29 day 11 mo.
Lydia of Lydia Millard	29 day 11 mo.
Mary of John Greenleaf's wife	29 day 11 mo.
Samuel of John Lowell	5 day 12 mo.
Solomon of John Neeland's wife	12 day 12 mo.
James of Martha & William Smyth	12 day 12 mo.

1671.

TOWN.

Mchetable of William & Mehetable Avis born Apr. 10.
 Benjamin of Nathanl & Mary Adams born May 27.
 John of John & Sarah Atwood born May 23.
 Edward of Edward & Sarah Allen born July 11.
 John of William & Deborah Armstrong born Aug. 11.
 Gideon of Gideon & Sarah Allen born Aug. 9.
 Thomas of Samuel & Hope Aston born Sept. 12.
 Elizabeth of Isaac & Eliza. Addington born Sept. 21.
 Edward of Theodore & Elizabeth Atkinson born Sept. 8.

Joseph of Joseph & Rebecca Allen born Jan. 3.
Ruth of John & Martha Amey born Mar. 1.
John of James & Elizabeth Allen born Feb. 29.
Elizabeth of Edward & Lydia Allen born June 23.
Nathaniel of Thomas & Esther Brental born July 31.
John of Thomas & Mary Beard born Mar. 26.
Benjamin of Benja. & Sarah Brisco born May 2.
Martha of Edward & Dorothy Budd born June 19.
Thomas of Phillip & Judith Bullis born Aug. 3.
Martha of Edward Jr. & Mary Belcher born Sept. 15.
William of Stephen & Mary Butler born Oct. 10.
Abigail of John & Elizabeth Brucken born Oct. 8.
Elizabeth of Thomas & Mary Briges born Nov. 21.
John of John & Elizabeth Barnes born Dec. 14.
Roger of Roger & Elizabeth Burges born Dec. 6.
Anna of Josiah & Ramis Belcher born Feb. 13.
John of John & Mary Bull born Mar. 14.
Elizabeth of Joseph & Elizabeth Billing born Jan. 18.
Sarah of Jeremiah & Sarah Belcher born Feb. 23.
Faithful of Faithful & Margaret Bartlett born Sept. 30.
Samuel of David & Obedience Copp born Apr. 15.
David of David & Elizabeth Cumins born Apr. 28.
Hannah of John & Susanna Cross born May 1.
Richard of Richard & Sarah Crisp born May 16.
George of George & Judith Croswait born June 16.
Margaret of John & Esther Crary born Feb. 19.
Ezekiel of Ezekiel & Mary Carveth born July 7.
John of Robert & Martha Cox born Aug. 7.
Margaret of Thomas & Martha Cox born Nov. 3.
John of John & Mary Cotta born Nov. 23.
John of John & Hannah Cowell born Nov. 15.
Mary of William & Elizabeth Coleman born Dec. 3.
Francis of William & Mary Caswell born Dec. 23.
Joseph of Joseph & Hannah Calley born Feb. 18.
Mary of Henry & Rebecca Coolle born Feb. 24.
Elizabeth of John & Elizabeth Coney born Feb. 24.
Nathaniel of Preserved & Deborah Collecot born Feb. 6.
Ebenezer of John & Mary Clough born Dec. 8.
Elizabeth of Joseph & Susannah Cock born Mar. 20.
Edward of Robert & Elizabeth Couch born Mar. 22.
William of John & Susannah Cole born July 13.
Adam of Adam & Hannah Dinsdall born Mar. 29.
Joseph of Leonard & Mercy Dowding born July 23.
John of John & Anne Dinsdall born Aug. 9.
Mary of Humphry & Mary Davie born Nov. 4.
Sarah of James & Francis Dowell born Dec. 1.
William of Ambrose & Mary Daws born Dec. 19.
Robert of Joseph & Abigaile Dudson born Mar. 20.
Rebecca of George & Lydia Ellistone born Apr. 2.
John of Peter & Clemence Egerton born July 19.
Robert of Edward & Sarah Ellis born Sept. 24.
Catharine of Teasant & Sarah Estick born Dec. 12.
Thomas of Benja & Mary Emons born Jan. 4.
Mary of John and Mary Ewell born Mar. 22.
Obadiah of Obadiah & Alice Emõns born Nov. 8.
Samuel of Obadiah & Alice Emõns born Nov. 8.
Henry of Henry & Mary Floyd born May 20.
Mehetable of John & Mehetable Frost born July 15.
Mary of Hopestill & Elizabeth Foster born July 22.
Hannah of Tremble & Elizabeth Gridley born Apr. 19.
Elizabeth of Thomas & Dorothy Greshan born Sept. 3.
Mary of Nathanll & Mary Greenwood born Sept. 26.
Samuel of Ezekiel & Ruth Gardner born Aug. 1.
Joseph of William & Eliza Greenough born Jan. 22.

Esther of Andrew & Sarah Garner born Dec. 7.
 Jacob of Robert & Elizabeth Gibbs born Feb. 18.
 John of Jaimes & Rebecca Green born Feb. 24.
 Nathaniel of William & Mary Hamlen born Mar. 27.
 Abigail of Nicholas & Elizabeth Howard born Mar. 25.
 Blanton of John & Mary Holman born May 22.
 Benjamin of Charles & Margaret Hopkins born July 3.
 John } of John & Joanna Harris born Sept. 17.
 George } of John & Joanna Harris born Sept. 17.
 Thomas of Humphrey & Mary Hodges born Sept. 16.
 Elizabeth of Henry & Eliza. Harwood born May 17.
 Mary of Eliakim & Sarah Hutchinson born Sept 30.
 Mary of Thomas & Kathar. Hartwed born Oct. 18.
 Mehetable of Joseph & Sarah Hurd born Nov. 19.
 Mary of John & Sarah Hollard born Nov. 14.
 Samuel of Samuel & Rachel Holman born Dec. 12.
 Hannah of Elisha & Hannah Hutchinson born Jan. 20.
 John of John & Joanna Hunlock born March 19.
 Sarah of John & Sarah Howard born Mar. 21.
 John of Joseph & Hannah Holman born June 23.
 Elizabeth of James & Joanna Ingles born Oct. 23.
 Joanna of James & Anne Johnson born July 6.
 John of John & Elizabeth Jackson born Sept. 12.
 Sarah of Thomas & Susanna Kelton born May 18.
 Samuel of Thomas & Abigail Kellond born Sept. 11.
 Elizabeth of Thomas & Elizabeth Kemble born Sept. 8.
 Davis of Richard & Joanna Knight born Mar. 15.
 William of William & Hannah Long born July 30.
 Mary of John & Hannah Liscomb born Aug. 10.
 Sarah of Thomas & Mary Lake born Sept. 14.
 Richard of Edward & Elizabeth Lillie born Sept. 20.
 Henry of Henry & Mercy Lowder born Dec. 7.
 Benjamin of John and Agnes Luz born Dec. 29.
 Abigail of Joseph & Abigail Lowell born Mar. 9.
 Ruth of William & Ruth Mumford born Mar. 26.
 Mary of Simeon & Bethiah Messinger born Mar. 25.
 Samuel of Samnel & Mary Mason born Apr. 18.
 Samuel of Samuel & Anne Mosely born Apr. 18.
 Samuel of Samuel & Mary Meers born May 22.
 William of John & Eliza. Magdaniel born Sept. 21.
 John of George & Hannah Manning born Oct. 11.
 Dennis of Dennis & Alice Magdaniel born Nov. 25.
 Sarah of Increase & Maria Mather born Nov. 9.
 William of Thomas & Elizabeth Mercer born Oct. 19.
 Lydia of Richard & Elizabeth Martin born Feb. 8.
 William of Nathanll & Deborah Man born Feb. 19.
 Robert of James & Elizabeth Meers born Jan. 29.
 Daniel of Darmon & Ellener Morris born Feb. 13.
 Samuel of Samuel & Martha Maverick born Mar. 16.
 Joshua of John & Martha Messenger born Jan. 2.
 Hannah of Thomas & Hannah Narramore born Sept. 23.
 Joseph of Robert & Mary Noakes born Oct. 16.
 Elizabeth of Andrew & Mellicent Neale born Dec. 11.
 Mary of William & Susanna Norton born Dec. 15.
 Joseph of Joshua & Elizabeth Nash born Feb. 14.
 John of John & Rebecca Nash born Mar. 9.
 John of John & Joanna Prescot born Mar. 29.
 Hannah of Moses & Elizabeth Paine born Apr. 20.
 Joseph & } of Nicholas & Phillippe Phillips born May 14.
 Benja. } of Nicholas & Phillippe Phillips born May 14.
 Benjamin of William & Frances Parham born Apr. 30.
 Elizabeth of William & Hopestill Pitts born July 5.
 Hannah of Zechariah & Elizabeth Phillips born July 31.
 William of William & Joane Phillips born Aug. 8.

Samuel of Samuel & Mary Pard born Sept. 25.
Thomas of Benja. & Ellener Phippen born Dec. 1.
Josiah of Timothy & Deborah Pratt born Jan. 11.
Anna of Richard & Elizabeth Price born Jan. 29.
Ellener of James & Sarah Pemberton born Feb. 3.
Mary of Samuel & Mary Prockter born Dec. 22.
Sarah of Obadiah & Anna Reed born Apr. 16.
Abigail of Joshua & Abigail Rawlings born May 25.
Judith of Richard & Elizabeth Randall born July 19.
Robert of Nathanll & Damaris Robinson born July 28.
George of Humphry & Mehetable Richards born July 7.
Ruth of John & Hannah Ruggles born Nov. 3.
Margaret of Samuel & Margaret Ruck born Sept. 25.
Hannah of John & Susanna Rainsford born Nov. 15.
Elizabeth of Daniel & Hannah Remington born Oct. 22.
John of John & Elizabeth Russell born Nov. 9.
Nathan of Nathan & Mary Rainsford born Jan. 10.
Sarah of John & Sarah Starkey born Apr. 1.
Mary of Joseph & Ann Stocker born Apr. 10.
William of John & Sarah Snelling born Apr. 9.
James of Loamie & Deborah Simpson born July 13.
Jonathan of John & Sarah Smith born July 5.
Thomas of Thomas & Temperance Smith born July 28.
Thomas of Pilgrim & Catharine Simpkins born May 30.
Henry of Thomas & Judith Snowsell born Aug. 15.
John of Erasmus & Elizabeth Stevens born Aug. 16.
Clement of William & Eliza. Sumner born Sept. 6.
Elizabeth of Jabez & Elizabeth Salter born Oct. 1.
Ann of John & Ann Sandys born Nov. 2.
Rebecca of Thomas & Rebecca Smith born Nov. 26.
Samuel of Jonathan & Mary Shrimpton born Dec. 10.
Mary of Ephraim & ——— Savage born Nov. 19.
Mary of Comfort & Mary Starr born Jan. 18.
Hannah of Richard & Hannah Sharp born Feb. 14.
Samuel of William & Martha Smith born Mar. 6.
Philip of Philip & Rachel Squire born Mar. 20.
Martha of Samuel & Eliza. Shrimpton born Jan. 21.
Elizabeth of John & Ellener Shern born Feb. 9.
Ann of John & Ann Soames born Nov. 2.
John of Stephen & Hannah Tolby born May 4.
Nathaniel of Nathaniel & Deborah Thayer born Aug. 28.
Dorothy of Henry & Eliza. Tompson born Oct. 26.
Peter of Peter & Lydia Townsend born Oct. 9.
Rebecca of John & Sarah Tomlin born Dec. 8.
Elizabeth of Thomas & Mary Thatcher born Dec. 26.
Jonathan of Jonathan & Sarah Tyng born Jan. 29.
William of William & Mary Whittingham born Nov. 9.
Lydia of Samuel & Joanna Ward born Mar. 30.
Jonathan of Lawrance & Hannah Waters born May 2.
Mary of William & Abigail Wright born May 17.
Rebecca of James & Rebecca Whetcomb born June 20.
Sarah of Richard & Sarah Wharton born Aug. 7.
Rachel of Thomas & Esther Woodward born.
Sarah of John & Mary White born Aug. 16.
Mary of Joseph & Grace Webb born Aug. 27.
Elizabeth of John & Joshabeth Wing born Sept. 19.
Mary of John & Anstis Williams born Sept 18.
William of Joseph & Mary Wheler born Sept. 26.
Thomas of John & Jane Williams born Oct. 22.
Hannah of Robert & Hannah Wacum born Nov. 15.
Martha of Lionel & Abigail Wheatly born Nov. 15.
Sarah of Bartho. & Amey Whitwell born Dec. 6.
Lydia of Joseph & Lydia Williams born Dec. 13.
Benjamin of Thomas & Hannah Wheeler born Jan. 18.
Mary of William & Mary Whitwell born Feb. 6.

FIRST CHURCH.

Mary of sister Bucknell	5 day	1 mo.
Abram of Mr John Davenport	19 day	1 mo.
Comfort of sister Mary Starr	19 day	1 mo.
Mary of sister Mary Cotte	19 day	1 mo.
Mary of John Andrewes' wife	9 day	2 mo.
Samuel of David Copp	16 day	2 mo.
Ruth of sister Ruth Mumford	16 day	2 mo.
Sarah Howard	23 day	2 mo.
Elizabeth Gross	23 day	2 mo.
Anna Gridly	23 day	2 mo.
Samuel of sister Ruth Bosworth	7 day	3 mo.
Sara of sister Sara Tucker	7 day	3 mo.
Lydia Moore, mother	14 day	3 mo.
Lydia of Lydia Moore	14 day	3 mo.
Elizabeth Lawson	14 day	3 mo.
Elizabeth of sister Foster	14 day	3 mo.
Thomas of sister Mary Wibourne	28 day	3 mo.
Mary of sister Mary Wibourne	28 day	3 mo.
Mary of sister Tewksberry	18 day	4 mo.
James of James Townesend	2 day	5 mo.
John of Elizabeth & John Skinner	9 day	5 mo.
Joseph of Elizabeth & John Skinner	9 day	5 mo.
Mary of Elizabeth & John Skinner	9 day	5 mo.
Mary of sister Elizabeth Foster	23 day	5 mo.
Thomas of sister Smyth	30 day	5 mo.
William of sister Long	6 day	6 mo.
William of sister Grace Webb	6 day	6 mo.
Elizabeth of sister Grace Webb	6 day	6 mo.
Henry of sister Mrs Knozell	20 day	6 mo.
Richard of sister Experience Miles	20 day	6 mo.
Mary of sister Mary Hewes	20 day	6 mo.
Ann of sister Mary Hewes	20 day	6 mo.
Mary of sister Elizabeth Weeb	3 day	7 mo.
Martha of sister Belcher	17 day	7 mo.
Thomas of sister Mary Butolph widow	1 day	8 mo.
Mary of sister Mary Butolph widow	1 day	8 mo.
Abigail of sister Mary Butolph widow	1 day	8 mo.
Nicholas of sister Mary Butolph widow	1 day	8 mo.
Elizabeth of Elizabeth & Isaac Addington	1 day	8 mo.
Edward of Theodore Atkinson Junior	1 day	8 mo.
Robert of Robert Ellis' wife	1 day	8 mo.
Abigail of John Brookin	15 day	8 mo.
John of George Maninge	15 day	8 mo.
Dorothy of Henry Thomson	29 day	8 mo.
Mary of Humphrey Davie	5 day	9 mo.
Ruth of John Ruggles husband to our sister Ruggles sometime wife of Nicholas Phillips	5 day	9 mo.
Hazelelponi Gee	19 day	9 mo.
John of sister Cowell	19 day	9 mo.
John of sister Clerke	19 day	9 mo.
Mary of sister Clerke	19 day	9 mo.
Elizabeth of sister Clerke	19 day	9 mo.
John of John Cottie	26 day	9 mo.
Lydia of sister Williams Junior	24 day	10 mo.
Mary of sister Starre	31 day	10 mo.

1672.

TOWN.

Mackworth of Abraham & Hannah Adams born Apr. 17.
 Hannah of David & Hannah Adams born Apr. 23.
 Elizabeth of Edward & Lydia Allen born Mar. 21.
 Johnathan of Jonathan & ——— Adams born May 29.
 John of Theodore Sen. & Mary Atkinson born June 13.
 James } of Hope & Hannah Allen born Sept. 6.
 Eliza. } of Hope & Hannah Allen born Sept. 6.
 Sarah of William & Mehetable Avis born Oct. 15.
 John of Henry & Mary Adams born Dec. 12.
 Abigail of Theodore Junr & Eliza. Atkinson born Dec. 13.
 Elizabeth of Samuel & Sarah Alcock born Dec. 25.
 Zachariah of John & Elizabeth Alden born Feb. 18.
 Elizabeth of Thomas & Mary Atkins born Dec. 30.
 William of John & Mary Briggs born Aug. 28.
 Timothy of Timothy & Abigail Batt born Apr. 20.
 Samuel of Samuel & Hannah Bridge born May 10.
 Mary of Richard & Eliza. Barnum born May 7.
 John of Joseph & Hannah Belknap born June 1.
 Hannah of Samuel & Mary Brown born June 14.
 Robert of Robert & Priscilla Blumford born June 21.
 Peter of James & Hannah Brading born May 5.
 Mercy of Benja & Bathshua Beale born July 17.
 Mary of George & Perne Broughton born Aug. 10.
 Joseph of Robert & Bathsheba Bronsden born Aug. 7.
 Zaccheus of Samuel & Mary Bosworth born Aug. 2.
 Benjamin of Ambrose & Mary Bennit born Oct. 2.
 Sarah of Benja. & Hannah Breeme born Oct. 15.
 Jane of Richard & Anne Burges born Nov. 2.
 Moremercy dau. of Free Grace & Mary Bendall born July 30.
 Love of William & Elizabeth Baker born Dec. 16.
 Elizabeth of John & Elizabeth Barnes born Dec. 7.
 Thomas of Thomas & Susanna Bingley born Jan. 1.
 James of James & Mehetable Bill born Nov. 23.
 Manassah of Manassah & Mary Beck born Feb. 23.
 Nathaniel of Nathanll & Judith Blake born Feb. 26.
 John of Thomas & Esther Brental born Mar. 3.
 Elizabeth of Anthony & Hannah Checkley born May 8.
 John of John & Mary Cox born May 12.
 Mary of John & Mary Chanterel born May 24.
 Thomas of Andrew & Mehetable Clarke born July 10.
 Moses of Jona. & Margaret Copp born June 19.
 Edward of Edward & Sarah Cowell born Aug. 12.
 Nathaniel of John & Sarah Clarke born Sept. 22.
 Sarah of Richard & Sarah Crisp born Sept. 15.
 Hannah of John & Hannah Cowell born Nov. 2.
 Mary of Josiah & Deborah Cobbet born Oct. 29.
 Samuel of John & Margaret Courser born Nov. 5.
 David of David & Elizabeth Cumins born Oct. 30.
 Sarah of Robert & Sarah Cooke born Mar. 10.
 Joseph of Joseph & Mary Cowell born Mar. 7.
 Elisha of Roger & Ann Doubleday born Apr. 6.
 John of John & Bridget Davenport born June 13.
 Priscilla of Edward & Susanna Darby born June 20.
 Mary of John & Mary Drury born July 10.
 Abigail of John & Abigail Davenport born Aug. 20.
 Hannah of Henry & Hannah Deddicot born Oct. 23.
 Thomas of Abrahah & Hannah Darby born Jan. 16.
 Peter of Peter & Clemence Edgerton born Oct. 6.

William of Henry & Ursely Edwards born Nov. 28.
 Thomas of Thomas & Mary Eldridge born Dec. 28.
 Hannah of Samuel & Mary Emons born Mar. 1.
 Lydia of Henry & Joanna Ellis born Mar. 10.
 Elizabeth of Thomas & Margaret Farbush born Apr. 17.
 Joanna of Benja. & Kathar. Francklin born July 12.
 Lydia of James & Hannah Flood born July 10.
 Elizabeth of John & Dorothy Foy born Sept. 21.
 Thomas of John & Elizabeth Freeke born Nov. 29.
 Susanna of Believe & Anne Gridley born Apr. 10.
 Penelope of John & Mary Gilbert born May 5.
 Esther of John & Mary Green born June 10.
 Priscilla of John & Priscilla Green born Sept. 2.
 Hannah of Thomas & Elizabeth Gross born Aug. 21.
 Thomas of James & Mehetable Goodin born Oct. 20.
 Walter of Thomas & Catharine Goodridge born Dec. 15.
 Ann of Matthew & Ellener Gross born Jan. 5.
 John of John & Hannah Greenleaf born Feb. 10.
 Dionysia of Benja. & Hannah Gillam born Feb. 8.
 John of William & Ruth Greenough born Feb. 17.
 Benjamin of Benjamin & Lydia Gibbs born Feb. 26.
 William of William & Hannah Harris born March 25.
 Thomas of Thomas & Mary Hutchinson born March 25.
 Sarah of Robert & Sarah Horton born April 27.
 Ruth of Thomas & Ruth Hitchborn born June 22.
 Naomi of John & Hannah Henley born July 27.
 John of William & Dorothy Hawkins born Aug. 7.
 Benjamin of John & Mary Homan born Aug. 14.
 Thomas of John & Mary Hayward born Oct. 27.
 Mercy of William & Anne Hobby born Oct. 4.
 Bethiah of Josiah & Mary Hobart born Oct. 5.
 Mary of Francis & Sarah Haselwood born Nov. 16.
 Thomas of John & Johanna Howen born Dec. 15.
 Sarah of Joshua & Hannah Hewes born Jan. 4.
 Samuel of John & Abigail Howlet born Feb. 6.
 Sarah of John & Elizabeth Hopper born Nov. 2.
 Katharine of Elisha & Han: Hutchinson born Feb. 24.
 George of George & Sarah Hiskett born Mar. 11.
 Deliverance of Henry & Lydia Ingram born Oct. 5.
 Rebecca of John & Rebecca Jarvis born Apr. 17.
 Thomas of Thomas & Abigail Jolls born Apr. 25.
 Sarah of Samuel & Phebe Johnson born June 10.
 Sarah of John & Sarah Johnson born June 11.
 Abraham of Jacob & Elizabeth Jesson born July 14.
 Edmund of Edmund & Eliza. Jackson born Aug. 2.
 John of John & Mercy Jaye born Sept. 30.
 Jotham of John & Elizabeth Jones born Oct. 9.
 Jonathan of Jonathan & Eliza. Jackson born Dec. 28.
 Mary of Samuel & Hannah Johnson born Jan. 10.
 Dinah of Joseph & Mary Knight born May 15.
 Timothy of Henry & Mary Kemble born Aug. 29.
 Mary of John & Rachel King born Dec. 19.
 Rebecca of Richard King born Jan. 23.
 Thomas of Francis & Elizabeth Lyford born Mar. 25.
 Sarah of Simon & Hannah Lynde born May 5.
 William of William & Naomi Lowle born Aug. 7.
 Nicholas of Nicholas & Gartered Lash born Sept. 2.
 Sibella of Samuel & Deliverance Legg born Sept. 2.
 Jonathan of William & Hannah Long born Sept. 21.
 Phillip of Richard & Elizabeth Loft born Nov. 13.
 William of Zibeon & Rachel Letherland born Mar. 5.
 Samuel of Samuel & Hannah Minot born Apr. 26.
 Sarah of Edward & Eliza. Mumford born Apr. 22.
 Joseph of John & Ruth Marshall born Apr. 14.

John of Francis & Ann Morse born June 6.
 Nicholas of Nicholas & Christian Molder born June 21.
 Joseph of John & Mary Mann born June 30.
 Sarah of John & Martha Messenger born Oct. 1.
 Lydia of William & Ruth Mumford born Nov. 17.
 Mehetable of Samuel & Constance Mattock born Nov. 7.
 Elizabeth of John & Abigail Muberry born Nov. 16.
 Jane of John & Jane Matson born Feb. 2.
 Elizabeth of William & Eliza. Middleton born Feb. 11.
 Susanna of Michael & Susanna Martin born July 3.
 Sarah of John & Sarah Noyes born Aug. 20.
 Sarah of Thomas & Hannah Narramore born Sept. 26.
 Lydia of George & Lydia Nowell born Nov. 1.
 Isaac of Samuel & Eliza. Norden born Mar. 8.
 Mary of John & Susanna Oliver born June 3.
 John &) of John & Elizabeth Osborne born June 11.
 Thomas } of John & Elizabeth Osborne born June 11.
 Margaret of Elisha & Abigail Odlin born Aug. 5.
 John of John & Sarah Orris born Aug. 5.
 Elizabeth of Peter & Hannah Odlin born Nov. 9.
 Hannah of Samuel & Mary Peacock born July 20.
 Judith of John & Judith Parmiter born July 17.
 Rebecca of John & Ruth Pearse born Aug. 12.
 Elizabeth of Walter & Elizabeth Poor born Aug. 22.
 Elizabeth of Henry & Mary Phillips born Aug. 29.
 William of William & Eliza Parker born Nov. 10.
 Mary of John & Joanna Pricot born Nov. 20.
 Humility of Edward & Elizabeth Paige born Jan. 7.
 Elizabeth of Thomas & Elizabeth Peck born Feb. 6.
 Tabitha of Robert & Rose Pegge born Feb. 27.
 Elizabeth of Nicholas & Philippa Phillips born June 5.
 Elizabeth of Samuel & Elizabeth Rust born Apr. 4.
 Michael of William & Elizabeth Robins born June 8.
 Prudence of Edward & Sarah Ringer born Nov. 5.
 Joseph of Simon & Christian Robarts born Jan. 24.
 Anna of Obadiah & Anna Reed born Feb. 3.
 Mary of Christo. & Dorcas Smith born Feb. 8.
 Anthony of Sampson & Susanna Stoddard born May 24.
 Deborah of Laomi & Deborah Simpson born May 31.
 Benjamin of John & Martha Saffin born June 15.
 Rebecca of John & Rebecca Scottow born June 27.
 Abiel of John & Hannah Styles born July 18.
 Elizabeth of John Junr & Sarah Shaw born Aug. 9.
 Benjamin of John & Sarah Snelling born Aug. 18.
 Samuel of Thomas & Temperance Smith born Aug. 23.
 Elizabeth of John & Elizabeth Skinner born Oct. 6.
 Abigail of Thomas & Susanna Stanbury Oct. 26.
 Jacob of Fearnot & Bethiah Shaw born Nov. 6.
 Martha of Joseph & Ann Stocker born Dec. 25.
 Frances of Edward & Elizabeth Shippen born Feb. 2.
 Experience of John & Sarah Starkey born Feb. 3.
 Samuel of Samuel & Mary Stocker born Mar. 28.
 Thomas of Thomas & Ann Shapcot born July 9.
 Mary of Daniel & Anna Turell born Apr. 4.
 Lydia of Benjamin & Abigail Twing born Jan. 25.
 John of John & Sarah Tucker born Aug. 22.
 Elizabeth of Ephraim & Sarah Turner born Aug. 19.
 Mary of William & Mary Thorn born Oct. 2.
 Rebecca of Joseph & Dorothy Townsend born Oct. 13.
 John) of Bradish Thayer born Oct. 3.
 Susanna } of Bradish Thayer born Oct. 3.
 Susanna of Thomas & Mary Townsend born Nov. 5.
 John of James & Eliza. Townsend born Dec. 14.
 Anna of Samuel & Abiga. Townsend born Jan. 30.

Matthew of Edward & Jane Uren born Nov. 16.
 Mary of Isaac & Mary Vergoose born May 22.
 John of John Junr & Mary Viall born Sept. 14.
 Lydia of Thomas & Mary Varney born Oct. 6.
 William of William & Constant Woster born May 7.
 Martha of Robert & Margaret Williams born May 21.
 Mercy of Dean & Sarah Winthrop born Jan. 18.
 Katharine of Edward & Eliza Winslow born June 2.
 Martha of John & Mary Williams born Apr. 23.
 Moses of Aaron & Joane Way born June 13.
 Joseph of Richard & Bathsheba Williams born Dec. 3.
 Bethiah of Richard & Sarah Wharton born Sept. 18.
 Thomas of Isaac & Dorcas Woodde born Sept. 9.
 Mary of Experience & Elizabeth Willis born Oct. 9.
 Edward } of Edward & Ruth Willis born Nov. 5.
 John } of Edward & Ruth Willis born Nov. 5.
 Nathaniel of John & Ann Williams born Nov. 11.
 Samuel of Peter & Mehetable Welcom born Oct. 15.
 William of Thomas & Mary Waler born Dec. 20.
 Mary of James & Mary Webster born Dec. 9.
 William of Joshua & Sarah Winsor born Nov. 26.
 William of William & Abigail Wright born Jan. 5.
 John of Sampson & Rebecca Waters born Jan. 2.
 Benjamin of Thomas & Elizabeth Walker born Jan. 2.
 Benjamin of Benjamin & Ruth Williams born Jan. 2.
 Richard of Joseph & Eliza Williams born Feb. 8.
 Susanna of Isaac & Susanna White born Feb. 12.
 Ebenezer of Peter & Sarah Warren born Feb. 11.
 Jonathan of Jonathan & Abiga Woodberry born Feb. 22.
 Jonathan of Thomas & Ruth Wybourn born Mar. 19.
 Joseph of John & Eliza White born Feb. 19.
 Thomas of John & Eliza Walley born Feb. 26.
 Susanna of Giles & Ruth Young born July 5.

FIRST CHURCH.

John Allen of our Teacher	3 day	1 mo.
Samuel of Wm. Smith	10 day	1 mo.
Robert of sister Dudson	24 day	1 mo.
Elizabeth of Edward Allen	24 day	1 mo.
Philip of sister Squire	24 day	1 mo.
A Child of John Violl	14 day	2 mo.
Ephraim of sister Phebe Eglan	14 day	2 mo.
A child of sister Belshur of Rumney Marsh or Wenyusement	14 day	2 mo.
A Child of sister Franckes	28 day	2 mo.
A Child of sister Faireweather	28 day	2 mo.
A child of	28 day	2 mo.
A child of Samuel Brugge	12 day	3 mo.
A child of bro Maxwell named ——	12 day	3 mo.
Child of Mary & Joseph Knight	19 day	3 mo.
Mary of Hannah Lynde	26 day	3 mo.
Martha of Robt. Williams	26 day	3 mo.
John of John Temple, buried	9 day	4 mo.
Hester of sister Greene	17 day	4 mo.
More-Mercy of Freegrace Bendall	30 day	4 mo.
Mary of sister Drywry the younger	7 day	5 mo.
Lydia of sister Permitter	21 day	5 mo.
Edmund of Edmund Jackson	4 day	6 mo.
Edward of sister Cowell	18 day	6 mo.
William of bro Lowell	18 day	6 mo.
Elizabeth of bro Phillips	18 day	6 mo.
Martha Walner	18 day	6 mo.

John of sister Tucker	25 day 6 mo.
Elizabeth daughter ¹	25 day 6 mo.
Zechaus of our sister Bosworth	25 day 6 mo.
Thomas of sister Walner	25 day 6 mo.
Mary of sister Walner	25 day 6 mo.
Child of sister Smith	1 day 7 mo.
Abigail of John Davenport	15 day 7 mo.
Jonathan of sister Temperance Smith	22 day 7 mo.
Elizabeth of Sister —	16 day 8 mo.
Lydia Mumforth	17 day 9 mo.
Mehetabel Mattocke	17 day 9 mo.
Ebenezer of brother Clough	24 day 9 mo.
Ruth of sister Chapin	1 day 10 mo.
John of sister Darby	8 day 10 mo.
Sara of sister Darby	8 day 10 mo.
Sara of sister Messinger	8 day 10 mo.
Abigail of sister Atkinson the younger	15 day 10 mo.
— of James Townsend	15 day 10 mo.
Mary of sister Starkie	29 day 10 mo.
Sarai of sister Starkie	29 day 10 mo.
— of —	29 day 10 mo.
— —	29 day 10 mo.
— of sister Waller	22 day 10 mo.
Sarai of sister Hewes	5 day 11 mo.
— of bro. Norden	5 day 11 mo.
Jo — & Jo — sons of sister Gatline	5 day 11 mo.
— son of sister Ruggles	12 day 11 mo.
Elizabeth of sister Alcocke	26 day 11 mo.
John of sister Greeneleaffe	16 day 12 mo.
Robert of Moyses Bradford	16 day 12 mo.
Hannah Maninge of sister Dinsdale	23 day 12 mo.
Adam Dinsdale of sister Dinsdale	23 day 12 mo.
John of sister Lowell	23 day 12 mo.

1673.

TOWN.

Jeremiah of James & Eliza. Allen born Mar. 29.
 Benjamin of Joshua & Mary Atwater born May 16.
 James of John & Sarah Atwood born June 3.
 John of Edward & Lydia Allen born June 10.
 Isaac of Nathanll & Mary Adams born Nov. 7.
 Judith of Henry & Judith Allen born Nov. 26.
 Eleazer of Timothy & Joanna Armitage born Feb. 18.
 Theodore of Theodore Senr. & Mary Atkinson born Feb. 28.
 Rebecca of Jonathan & Rebecca Adams born Mar. 9.
 Barnabas of Timothy & Abigaile Batt born Apr. 14.
 James of James & Hopestill Barnes born Apr. 6.
 Robert of Moses & Eliza. Bradford born Feb. 12.
 Mary of Thomas & Mary Beard born May 25.
 Samuel of John & Hannah Buttolph born May 18.
 Hannah of Joseph & Hannah Belknap born June 8.
 Jane of Edward & Dorothy Budd born July 25.
 Edward of George & Pearne Broughton born Oct. 12.
 Hannah of Samuel & Hannah Bridge born Oct. 22.
 Nathaniel of Jeremiah & Sarah Belcher born Oct. 27.
 Dorothy of Josiah & Ranis Belcher born Oct. 28.
 Elizabeth of Joseph & Elizabeth Baster born Dec. 24.

¹ This should refer to Tucker or Bosworth; but the record is so bad as to leave it uncertain.
— W. S. A.

Mary of Ezekiel & Rebecca Brisco born Dec. 17.
 Sarah of Paul & Sarah Batt born Jan. 18.
 John of John & Susanna Barnet born Dec. 15.
 John of John & Elizabeth Baster born Dec. 1.
 Rachel of Phillip & Judith Bullis born Sept. 28.
 Benjamin of Phillip & Susanna Blague born Mar. 13.
 Esther of Roger & Elizabeth Burges born Mar. 16.
 Henry of John & Mary Bull born Mar. 12.
 Joseph of Thomas & Esther Brental born Mar. 3.
 Free Grace of Free Grace & Mary Bendall born Feb. 10.
 Mary of John & Joanna Carthew born Mar. 27.
 Robert of Persival & Elizabeth Clarke born Apr. 20.
 Martha of Robert & Martha Cox born June 4.
 John of David & Obedience Copp born June 9.
 John of John & Mary Christmas born June 12.
 Joseph of John & Mary Chanterel born June 9.
 John of Elisha & Elizabeth Cooke born July 11.
 Margaret of Edward & Sarah Cowell born Aug. 2.
 Mary of John & Mary Clough born Aug. 7.
 Joseph of Joseph & Susanna Cock born Sept. 5.
 Benjamin of John & Elizabeth Coney born Oct. 16.
 Mary of Anthony & Hannah Checkley born Oct. 14.
 Hannah of Samuel & Deborah Clement born Nov. 5.
 Samuel of John & Martha Clarke born Nov. 10.
 Benjamin of William & Elizabeth Coleman born Oct. 19.
 Richard of Preserved & Deborah Collecot born Oct. 29.
 Joshua of John & Mary Cotta born Nov. 10.
 John of Richard & Jane Cleare born Feb. 10.
 Jonathan of Jona. & Margaret Copp born Apr. 6.
 John of William & Mary Castle born Feb. 11.
 Susanna of Andrew & Mehetable Clarke born Mar. 12.
 John of Henry & Rebecca Cowley born Feb. 13.
 Thomas of Thomas & Martha Cox born Mar. 24.
 Susanna of John & Susanna Cross born Nov. 27.
 Roger of John & Esther Crary born Apr. 20.
 Sarah of Adam & Hannah Dinsdall born Apr. 6.
 Cornelius of Samuel & Sarah Davis born Apr. 1.
 Humphry of Humphry & Mary Davie born June 10.
 Leonard of Leonard & Mercy Dowding born July 18.
 Susanna of John & Ann Dinsdall born Oct. 10.
 Thomas of John & Mary Dyer born Sept. 18.
 George of Samuel & Deborah Davis born Oct. 25.
 Hannah of Stephen & Sarah Davis born Oct. 25.
 Elizabeth of Joseph & Elizabeth Davis born Nov. 8.
 Susanna of Ambrose & Mary Dawse born Jan. 11.
 Jethro of Roger & Ann Doubleday born Oct. 25.
 George of Joseph & Elizabeth Dell born Jan. 25.
 Mary of Jeremiah & Ann Dummer born Mar. 14.
 Joseph of Joseph & Abigail Davis born March 23.
 Thomas of Thomas & Ann Dean born Mar. 18.
 Henry of Henry & Elizabeth Emes born May 4.
 Jacob of Jacob & Mary Eliot born Apr. 16.
 Robert } of Robert & Hannah Earle born May 15.
 Roger } of Robert & Hannah Earle born May 15.
 Susanna of James & Susanna Ellis born May 25.
 Samuel of Samuel & Mary East born Sept. 26.
 Rebecca of Benja. & Mary Emōns born Dec. 23.
 Phoebe of William & Phoebe Eglon born Mar. 17.
 Samuel of Theophilus & Hannah Frarey born May 13.
 Benjamin of Samuel & Anne Flack born May 23.
 Martha of Thomas & Margt. Forbush born Aug. 22.
 Abigail of Daniel & Sarah Fairfield born Feb. 22.
 Jonathan of Henry & Mary Floyd born Mar. 16.
 James of James & Jane Fryer born Mar. 3.

Hannah of William & Hannah Gibson born May 5.
 Lydia of Henry & Mary Gibs born July 3.
 Ann of Joseph & Martha Gillam born July 15.
 Thomas of Thomas & Dorothy Gretian born Aug. 30.
 James of John & Emm Gypson born Sept. 20.
 Elizabeth of Peter & Sarah Goulding born Oct. 6.
 Mary of Samuel & Mary Greenwood born Dec. 30.
 Joseph of Jonathan & Mary Gatliffe born Feb. 15.
 Sarah of Nathanll. & Mary Greenwood born Feb. 24.
 Elizabeth of Thomas & Elizabeth Gross born Jan. 22.
 William of Daniel & Mary Henchman born Mar. 29.
 James of James & Sarah Harris born Apr. 4.
 Joseph of John & Joanna Harris born Mar. 25.
 John of Humphrey & Sarah Horrell born Apr. 8.
 Nathll of Humphrey & Sarah Horrell born Apr. 8.
 Sarah of John & Eliza. Harris born Apr. 14.
 Samuel of William & Hannah Hoare born May 6.
 Mary of Thomas & Abiga. Hatherly born May 11.
 Mary of James & Mary Harrington born May 19.
 John of John & Mary Hill born June 2.
 Elizabeth of James & Dinah Halsey born June 24.
 William of Samuel & Abigail Hudson born June 22.
 Sarah of John & Sarah Horton born June 30.
 Rebecca of George & Mary Hooper born July 29.
 Elizabeth of Reuben & Hannah Hull born Sept. 9.
 Sarah of John & Joanna Hunlock born Sept. 10.
 William of William & Dorothy Hawkins born Sept. 8.
 Sarah of Eliakim & Sarah Hutchinson born Oct. 15.
 Mary of John & Ann Hubbard born Oct. 25.
 Elizabeth of Charles & Mehetable Hopkins born Oct. 22.
 Lydia of William & Lydia Huff born Nov. 14.
 Michael of Timothy & Kathar. Hortman born Nov. 29.
 Thomas of William & Decline Hollowell born Oct. 1.
 Mary of Joseph & Sarah Hurd born Feb. 17.
 Thomas of Robert & Joanna Harwood born Jan 31.
 Henry of Henry & Eliza. Harwood born Jan. 2.
 Thomas of Thomas & Ruth Hitchborn born Mar. 23.
 Henry of Henry & Lydia Ingram born Nov. 1.
 Hannah of Samuel & Mercy Jacklin born Apr. 5.
 Elizabeth of John & Eliza. Jackson born Aug. 24.
 Elizabeth of Samuel & Eliza. Judkin born Sept. 6.
 Mary of Aaron & Mary Jeffords born Dec. 4.
 Michael of Robert & Elizabeth Judd born Feb. 12.
 Ruth of John & Mary Kneeland born July 30.
 Elizabeth of Thomas & Abigail Kellond born Aug. 14.
 Hannah of Thomas & Susanna Kellon born Sept. 19.
 Sarah of John Esq. & Sarah Leveret born June 15.
 Elizabeth of Francis & Elizabeth Lyford born July 19.
 Hannah of William & Hannah Long born Jan. 25.
 John of Samuel & Decline Legg born Mar. 1.
 Elizabeth of John & Naomi Lowell born Mar. 1.
 Enoch of Simon & Hannah Lynde born Jan. 27.
 Samuel of Samuel & Hannah Minot born Mar. 31.
 Hannah of Edmund & Eliza. Mountfort born Apr. 14.
 Bartholomew of John & Sarah Marsh born July 3.
 Sarah of John & Lydia Moore born July 19.
 Rachel of Henry & Rachel Mattock born July 24.
 John of John & Elizabeth Morse born Aug. 28.
 Mary of Samuel & Mary Meers born Nov. 26.
 Mary of Samuel & Constance Mattock born Nov. 13.
 Oliver of James & Elizabeth Meers born Dec. 3.
 Samuel of Jeremiah & Sarah Merils born Dec. 10.
 Mary of James & Margery Maxwell born Jan. 25.
 John of John & Abigail Mulberry born Jan. 28.

John of Samuel & Mary Mason born Jan. 29.
 Andrew of Oliver & Patty Mansfield born Feb. 17.
 Huldah of Francis & Anne Morse born March 7.
 Robert of Robert & Mary Noakes born Oct. 13.
 Elizabeth of John & Elizabeth Osborne born Dec. 25.
 John of John & Elizabeth Pole born Apr. 14.
 John of Benja. & Ellener Phippen born June 1.
 Edeth of Thomas & Esther Platts born June 11.
 Ann of Robert & Mary Peard born July 9.
 Mary of Nehemiah & Phoebe Pearse bore Aug. 21.
 William of William & Eliza. Pickram born Aug. 24.
 Samuel of William & Love Prout born Sept. 16.
 Jonathan of Samuel & Mary Peacock born Oct. 15.
 Edward of William & Elizabeth Porter born Dec. 20.
 Mary of Samuel & Mary Pollard born Nov. 22.
 Samuel of Samuel & Mary Pearse born Jan. 28.
 Martha of Richard & Martha Patteshal born Jan. 31.
 Mary of Humphry & Mehetable Richards born Apr. 9.
 Solomon of Solomon & Priscilla Rainsford born May 14.
 Andrew of Samuel & Margaret Ruck born Aug. 31.
 Thomas of Caleb & Eliza. Rawlings born Sept. 15.
 Thomas of John & Eliza. Russell born Sept. 15.
 Samuel of Samuel & Sarah Ruggles born Oct. 1.
 Mary of John & Charity Ricks born Jan. 13.
 Ann of Richard & Elizabeth Randall born Feb. 18.
 Jonathan of John & Susan Rainsford born Feb. 25.
 Margaret of John & Margaret Selley born Mar. 25.
 James of Sampson Negro & Susan his wife born Mar. 25.
 Aeneas of Aeneas & Joane Salter born Apr. 7.
 Mary of Ephraim & Mary Savage born Apr. 8.
 Samuel of Samuel & Eliza. Shrimpton born Apr. 20.
 Thomas of Robert & Elizabeth Sanford born Apr. 27.
 Thomas of Joseph & Mary Shaw born Apr. 17.
 Hannah of Ephraim & Alice Searle born May 15.
 Phoebe of John & Mary Smith born June 27.
 Benjamin of Joseph & Mary Swett born July 12.
 Joseph of Benja. & Mercy Sanderson born Mar. 4.
 Mary of Jabez & Elizabeth Salter born Aug. 28.
 Jane of Christo. & Dorcas Smith born Aug. 27.
 Samuel of John & Sarah Stanbridge born 15 ____.¹
 Mary of Rossemus & Elizabeth Stevens born ____.¹
 Lydia of John & Elizabeth Scott born ____.¹
 Hannah of John & Hannah Soames born ____.¹
 Philip of Philip & Margaret Stratton born ____.¹
 William of William & Catharine Simpkins born ____.¹
 Mary of Joseph & Elizabeth Soper born Dec. 1.
 Sibella of John & Ann Sands born Oct. 22.
 Deborah of John & Maria Thwing born Mar. 29.
 James of Bartho. & Damaris Thredneedle born Apr. 17.
 John of John & Elizabeth Tudor born Feb. 12.
 Deliverance of Ephraim & Sarah Turner born Aug. 1.
 Lydia of Peter & Lydia Townsend born Aug. 5.
 John of Jona. & Sarah Tyng born Sept. 1.
 Mary of William & Leah Towers born Sept. 2.
 Mary of William & Mary Timberlake born Sept. 15.
 Hannah of Walter & Hannah Thomas born Sept. 23.
 Silvanus of George & Tabitha Tankersly born Sept. 24.
 Thomas of Thomas & Mary Thatcher born Sept. 25.
 Henry of Henry & Elizabeth Tompson born Oct. 23.
 Samuel of John & Sarah Tucker born Dec. 22.
 Isaac of John & Sarah Tuckerman born Feb. 6.
 Sarah of John & Sarah Tomlin born Jan. 21.

¹The corner of leaf is torn off. — W. S. A.

Thomas of William & Rebecca Tayler born Feb. 18.
 Robert of John & Deliverance Tray born Mar. 20.
 Benjamin of John & Mary Vering born Aug. 19.
 Susanna of Isaac & Mary Vergoose born Mar. 3.
 Joanna of William & Joanna Williams born Apr. 18.
 Richard of James & Rebecca Whetembe born May 3.
 Thomas of Samuel & Hannah Ward born June 25.
 William of James & Mary Worden born July 9.
 John of William & Ureth Whitway born Aug. 9.
 Sarah of John & Elizabeth Wensley born Aug. 11.
 Benjamin of Thomas & Hannah Wheeler born Sept. 10.
 Jonathan of Robert & Margery Williams born Sept. 22.
 John of Experience & Mary Willis born Aug. 29.
 Robert of John & Josabeth Wing born Sept. 8.
 Elizabeth of Thomas & Susanna Walker born Oct. 19.
 John of Richard & Bathsheba Williams born Oct. 24.
 Sarah of Joseph & Grace Webb born Oct. 14.
 Sarah of Joshua & Sarah Winsor born Nov. 3.
 Frances of Richard & Sarah Wharton born Oct. 6.
 Priscilla of Cornelius & Priscilla White born Nov. 28.
 Samuel of Peter & Mehetable Welcome born Dec. 22.
 William of Lionel & Abigail Wheatly born Mar. 1.
 ——— Daugt. of Thomas & Susanna Wagget born Oct. 31.¹
 ——— Daugt. of Edward & Elizabeth Winslow born Mar. 22.¹
 ——— Son of Thomas & Esther Woodward born Sept. 10.¹
 ——— Daugt. of Joseph & Joanna Wing born Mar. 2.¹
 ——— of Thomas & Mary Wells born Dec. 10.¹

FIRST CHURCH.

Isaac of brother Norden	9 day	1 mo.
Sarai of brother Emons	9 day	1 mo.
Jeremiah of James Allen our Teacher	30 day	1 mo.
Sarah of sister Dinsdale	13 day	2 mo.
Hannah of sister Moumfforth	20 day	2 mo.
—— of our sister Clerke	27 day	2 mo.
Hannah of Ephraim Searle	18 day	3 mo.
Thomas of Robert Sanfford	4 day	3 mo.
Martha of sister Rachel Litherland	4 day	3 mo.
William of sister Rachel Litherland	4 day	3 mo.
John of sister Williams ²	8 day	4 mo.
—— dau. of our bro. Douse ²	8 day	4 mo.
John of Edward Allen	15 day	4 mo.
John of David Copp	15 day	4 mo.
Sarai Leveritt of John Leveritt Gover.	22 day	4 mo.
Humphrey of Humphrey Davie	22 day	4 mo.
Benjamin of sister Swete	13 day	5 mo.
Sarah of John Moore	20 day	5 mo.
—— of sister Neeland	27 day	5 mo.
—— of sister Turner	3 day	6 mo.
Mary of sister Balston	10 day	6 mo.
Mary of bro. Clough	10 day	6 mo.
Martha of Edw. Cowell	10 day	6 mo.
Benjamin presented by sister Douce aged about 6 or 7 yrs.	10 day	6 mo.
Mehetabel of Sarah Orchard	17 day	6 mo.
James of John Jepson	21 day	7 mo.
Tho: of John Dyer of Ch. of Weymoth	19 day	8 mo.
Ruth of sister Web	19 day	8 mo.
Henry of Henry Tompson	26 day	8 mo.

¹The corner of leaf is torn off. — W. S. A.

²Perhaps these lines should read "John of sister Williams, dau. of our bro. Douse." — W. S. A.

Hannah of Samuel Bridges	26 day 8 mo.
Hephzibeh of George Monioye	9 day 9 mo.
also Goody Baxter presented	9 day 9 mo.
—— of sister Belcher	23 day 9 mo.
Judith of Henry Allen Deacon	31 day 9 mo.
Mercy of sister Boswoorth	31 day 9 mo.
John of John Temple	31 day 9 mo.
Elizabeth presented by Sergent Jackson	8 day 10 mo.
Mary of sister Mattocke	8 day 10 mo.
Mary of Edward Davis	18 day 11 mo.
Enoch of Symond Lynde	1 day 12 mo.
Mary of brother Maxwell	1 day 12 mo.
John of Sam Mason	1 day 12 mo.
Hannah of sister Brookin	1 day 12 mo.
It is since informed that the child presented by Goodman Brookin was the child of his sister Longe.	
John of sister Gatcliffe	15 day 12 mo.
Mercy of sister Brookin	22 day 12 mo.

1674.

TOWN.

Deborah of Hope & Hannah Allen born Mar. 26.
 William of Edward & Mary Ashly born June 24.
 Elizabeth of Jonathan & Eliza. Armitage born Aug. 26.
 Samuel of William & Mehetable Avis born Sept. 2.
 David of David & Hannah Adams born Nov. 15.
 Isaac of Abraham & Sarah Adams born Nov. 10.
 Samuel of Henry & Judith Allen born Jan. 12.
 Mary of Henry & Mary Adams born Feb. 12.
 Thomas of Thomas & Mary Atkins born Feb. 26.
 Anna of Thomas & Lydia Batt born July 22.
 Joseph of George & Deborah Burrell born July 27.
 Elizabeth of John & Susanna Bewers born Sept. 5.
 Sarah of Jeremiah & Sarah Bumstead born Sept. 8.
 John of Benja. & Elizabeth Button born Oct. 7.
 Sarah of Robert & Elizabeth Butcher born Oct. 28.
 Joseph of Robert & Elizabeth Blumford born Oct. 22.
 Sarah of William & Elener Baker born Dec. 3.
 John of John & Mary Briggs born Dec. 20.
 Robert of John & Susanna Bradish born Dec. 28.
 Abigail of Richard & Elizabeth Barnam born —
 Susanna of Benja. & Sarah Brisco born Feb. 9.
 Mercy of John & Hannah Buttolph born Mar. 2.
 Abigail of Josiah & Ranis Belcher born Mar. 10.
 Mary of Samuel & Mercy Brackenbury born Feb. 26.
 Mary of Manassah & Mary Beck born Mar. 12.
 John of John & Lydia Ballantine born Mar. 15.
 Rebecca of Richard & Elizabeth Critchley born Mar. 1.
 Elizabeth of Sampson & Elizabeth Cole born June 7.
 Samuel of Samuel & Bethiah Clarke born Mar. 27.
 John of John & Ellener Comer born Aug. 12.
 Mary of Peter & Rachel Codner born Sept. 3.
 Phillip of David & Elizabeth Cumins born Nov. 1.
 Joanna of John & Mary Courser born Sept. 18.
 Sarah of Robert & Sarah Canon born Nov. 18.
 Patience of Ralph & Susann Carter born Nov. 7.
 Hannah of Robert & Anne Chelston born Dec 3.
 Hannah of Anthony & Hannah Checkley born Dec. 19.
 Susanna of John & Mary Clough born Jan. 27.
 William of John & Elizabeth Clear born Jan. 20.

John of Ellis & Mary Callender born Jan. 30.
 John of John & Hannah Cowell born Jan. 12.
 Elizabeth of Thomas & Hannah Clarke born Feb. 11.
 Phillip of John & Mary Cox born Feb. 9.
 Thomas of John & Sarah Clarke born Feb. 22.
 Thomas of Thomas & Jane Clarke born Feb. 15.
 Eleazer of Eleazer & Rebecca Davenport Apr. 13.
 Hugh of Hugh & Mary Drury born July 19.
 Hannah } of William & Huldah Davis born Aug. 19.
 Jane } of William & Huldah Davis born Aug. 19.
 Giles of Giles & Hannah Dier born Oct. 30.
 Isaac of Isaac Deschamps born Nov. 10.
 David of Sampson & Sarah Dewer born Dec. 5.
 William of Samuel & Sarah Davis born Nov. 17.
 Thomas of Hix & Sarah Denning born Dec. 17.
 Sarah of Roger & Ann Doubleday born Feb. 14.
 Samuel of Francis & Martha Dudson born Feb. 14.
 Mark of Mark & Mary Day born Mar. 24.
 William of Henry & Elizabeth Emes born May 28.
 Sarah of John & Mary Ewell born June 16.
 John of Peter & Clemence Edgerton born May 30.
 Mary of Simon & Mary Emry born June 30.
 Sarah of Phesant & Sarah Eastwick born Apr. 24.
 Mercy of Joseph & Mercy Eliot born Aug. 27.
 Ann of John & Elizabeth Endecot born Oct. 7.
 Ann of John & Mary Ely born Dec. 26.
 John of James & Susanna Ellis born Jan. 13.
 James of Edward & Sarah Ellis born Feb. 14.
 Mary of John & Elizabeth Freake born May 6.
 William of Joseph & Mary Farnham born June 29.
 John of John & Dorothy Foy born June 28.
 Sarah of Benj. & Katharine Franklin born Oct. 2.
 Bethiah of Theophilus & Hannah Frarey born Dec. 5.
 Hannah } of Alexander & Catharine Forbush born Feb. 10.
 Eliza. } of Alexander & Catharine Forbush born Feb. 10.
 Elizabeth of Nathanll. & Mary Fox born Dec. 27.
 Joseph of James & Hannah Flood born Feb. 15.
 Elizabeth of Daniel & Sarah Fairfield born Mar. 1.
 Sarah of Patrick & Sarah Forset born Mar. 1.
 Sarah of John & Priscilla Green born Mar. 29.
 Benjamin of Benjamin & Lydia Gibbs born July 29.
 Nathaniel of William & Rebecca Gilbert born Aug. 6.
 Gillet of Jacob & Hannah Garner born Sept. 23.
 Esther of James & Rebecca Green born Sept. 27.
 Patience of Richard & Elizabeth Gibbs born Nov. 10.
 Aquila of William & Hannah Gibson born Dec. 3.
 Thomas of Matthew & Mary Grover born Jan. 16.
 Mercy of William & Eliza. Greenough born Feb. 16.
 John of Nathanll. & Mary Green born Feb. 22.
 John of William & Maria Gard born Mar. 4.
 Windsor of Peter & Sarah Goulding born Mar. 3.
 Judith of William & Anne Hobby born May 8.
 Jane of Daniel & Mary Henchman born May 25.
 John of George & Hannah Henley born June 13.
 Mary of James & Mary Harrington born July 1.
 Irene of Joshua & Mary Hobart born Apr. 10.
 John of John & Sarah Holland born July 20.
 Sarah of John & Susanna Howlet born May 22.
 Powell of Anthony & Margaret Hayward born Oct. 19.
 Thomas of Thomas & Judith Hunt born Nov. 11.
 Hannah of John & Sarah Howard born Oct. 29.
 Mary of George & Sarah Hisket born Nov. 11.
 Ephraim of Ephraim & Sarah Hall born Oct. 22.
 Margaret of James & Sarah Harris born Jan. 16.

Thomas of Elisha & Susan Hutchinson born Jan. 30.
 Hannah of Robert & Sarah Horton born Jan. 7.
 Samuel of Joseph & Elizabeth How born Dec. 28.
 Sarah of John & Anne Hubbard born Feb. 11.
 John of James & Elizabeth Hewes born Aug. 25.
 Ann of John & Joanna Howen born Feb. 12.
 Joseph of William & Hannah Hoare born Mar. 15.
 John of John & Mary Hayward born Mar. 22.
 James of James & Joanna Ingles born May 24.
 Edmund of John & Elizabeth Irons born Jan. 27.
 Jonathan of Thomas & Abigail Jolls born Mar. 21.
 Jacob of Jacob & Elizabeth Jesson born Sept. 18.
 Samuel of Samuel & Mary Jenkins born Oct. 11.
 Mary of Edward & Elizabeth Jackson born Dec. 22.
 Mercy of Samuel & Mercy Jacklin born Dec. 24.
 Sarah of Samuel & Elizabeth Judkin born Jan. 17.
 Mercy of John & Elizabeth Jacklin born Mar. 12.
 Thomas of Thomas & Abigail Kellond born Aug. 29.
 Arthur of John & Rachel Kinde born Oct. 28.
 Edward of John & Mary King born Feb. 27.
 Skipper of John & Kathar. Maverick born May 4.
 Elizabeth of Dennis & Alice Magdaniel born May 7.
 Elizabeth of Daniel & Mary Matthews born June 30.
 Edward of Samuel & Naomi Moore born July 5.
 Mary of Richard & Sarah Middlecot born July 1.
 Jeremiah of Return & Sarah Munnings born Apr. 5.
 Honour of Dorman & Ellener Merris born Apr. 1.
 John of John & Margaret Marsh born July 23.
 Elizabeth of Jacob & Rebecca Mason born July 29.
 Samuel of Increase & Maria Mather born Aug. 28.
 Thomas of Henry & Alice Mare born Oct. 8.
 Mercy of John & Eliza. Magdaniel born Oct. 11.
 Joseph of George & Hannah Manning born Nov. 6.
 Dorcas of Edward & Jane Mortimore born Nov. 28.
 Joseph of Joseph & Eliza. Marshal born Dec. 18.
 Arthur of Arthur & Susanna Mason born Jan. 18.
 Joshua of Edmund & Eliza. Mountfort born Feb. 6.
 Nathaniel of Nathanll & Deborah Mann born Mar. 17.
 James of Thomas & Hannah Narramore born May 4.
 Mary of Andrew & Mellicent Neale born June 11.
 John of John & Sarah Noise born Nov. 4.
 John of Peter & Hannah Odlin born Feb. 5.
 Elizabeth of John & Mary Pell born June 22.
 Mary of Nicholas & Philippa Phillips born June 23.
 Elizabeth of Thomas & Elizabeth Peck born June 29.
 Wheelwright of George & Elizabeth Parson born Apr. 10.
 Sarah of John & Sarah Place born July 11.
 Robert of William & Rebecca Pasmore born June 29.
 Lydia of Moses & Elizabeth Paine born Aug. 23.
 John of William & Hopestill Pitts born Aug. 28.
 Joseph of James & Mary Peniman born Oct. 8.
 Margaret of Timothy & Deborah Prout born Nov. 11.
 John of John & Judith Parmiter born Nov. 17.
 Sarah of Seth & Dorothy Perry born Nov. 24.
 Peter of William & Elizabeth Porter born Dec. 24.
 Mary of Samuel & Mary Pearse born Feb. 5.
 Elizabeth of John & Elizabeth Poole born Dec. 29.
 Elizabeth of John & Elizabeth Peck born Feb. 26.
 David of David & Abigail Rainsford born May 20.
 John of Edmund & Sarah Ranger born Apr. 16.
 Mary of Samuel & Elizabeth Rust born Apr. 14.
 Ann of William & Anne Rawson born Apr. 11.
 Philip of Nathanll & Priscilla Renalls born Sept. 15.
 Elisha of Thomas & Sarah Rix born Oct. 30.

Damaris of Nathanll & Damaris Robinson born Dec. 29.
 Elizabeth of Samuel & Elizabeth Shrimpton born Apr. 21.
 Nathan of Thomas & Susanna Stanbury born May 3.
 Thomas of Thomas & Margaret Stevens born May 6.
 Benjamin of Benja. & Mercy Sanderson born May 25.
 Jane of Philip & Rachel Squire born June 9.
 Elizabeth of Thomas & Temperance Smith born June 7.
 Samuel of John & Sarah Smith born June 4.
 Solomon of William & Martha Smith born July 9.
 Mary of John & Mary Smith born July 20.
 Martha of John & Sarah Starkey born Mar. 25.
 Ann of Laomi & Deborah Simpson born July 28.
 Elias of Elias & Mary Stiff born Aug. 13.
 Martha of Thomas & Ann Shapcot born Aug. 4.
 Daniel of Joseph & Elizabeth Souther born Aug. 12.
 Samuel of Samuel & Sarah Snow born Aug. 24.
 Thomas of Thomas & Mary Smith born Sept. 8.
 Habijah of Thomas & Elizabeth Smith born Sept. 10.
 John of Aeneas & Joane Salter born Sept. 24.
 Richard of Richard & Hannah Sharp born Sept. 12.
 Edward of Edward & Elizabeth Shippen born Oct. 2.
 Ephraim of Ephraim & Alice Searle born Nov. 4.
 Thomas of John & Sarah Skeath born Oct. 23.
 William of William & Mary Spowell born Dec. 7.
 John of Ephraim & Mary Savage born Nov. 30.
 Sarah of Joseph & Sarah Showell born Jan. 27.
 Phoebe } of Joseph & Mary Swett born Feb. 7.
 Anna } of Joseph & Mary Swett born Feb. 7.
 Elizabeth of Benja. & Mary Stowe born Jan. 29.
 John of John & Sarah Shaw born Jan. 28.
 Mercy of William & Elizabeth Sumner born Jan. 6.
 Joshua of John & Rebecca Scottow born Feb. 22.
 Elnathan of William & Abigail Stevens born Feb. 18.
 Margaret of Stephen & Dorothy Sergeant born Mar. 10.
 Anna of Daniel & Anna Turell born Mar. 31.
 Mary of Timothy & Experience Thornton born Apr. 2.
 Pen of Pen & Sarah Townsend born July 31.
 Silvanus of George & Tabitha Tankersly born Sept. 17.
 John of Richard & Elizabeth Tout born Sept. 5.
 John of John & Kesiah Tucker born Oct. 1.
 Elizabeth of James & Elizabeth Taylor born Oct. 24.
 Ann of Joseph & Dorothy Townsend born Oct. 21.
 Thomas of John & Elizabeth Tudor born Nov. 11.
 Anna of Richard & Anna Travis born Oct. 2.
 Joshua } of Thomas & Mary Townsend born Nov. 21.
 Caleb } of Thomas & Mary Townsend born Nov. 21.
 John of John & Rebecca Taylor born Nov. 22.
 John of Thomas & Mary Thatcher born Jan. 22.
 Hannah of John & Maria Thwing born Mar. 4.
 Nathaniel of John & Mary Viall born Oct. 8.
 Obadiah of Obadiah & Susannah Wakefield born May 4.
 Samuel of Bartho. & Amey Whitwell born May 17.
 Elizabeth of John & Mary Williams born May 22.
 Timothy of William & Constant Worcester born June 2.
 John of John & Anstis Wilkins born Apr. 30.
 John of Richard & Hannah West born May 29.
 Hannah of Joseph & Lydia Williams born May 20.
 Susanna of Agnes & Patience White born Apr. 4.
 John of John & Mary White born July 2.
 Michael of Experience & Elizabeth Willis born July 9.
 Elizabeth of John & Elizabeth Woodmansey born Aug. 13.
 John of John & Susanna Wilkins born Sept. 15.
 Mary of Joseph & Sarah Winslow born Sept. 25.
 Catharine of Richard & Sarah Wharton born Oct. 6.

Anna of John & Anna Williams born Nov. 4.
 Sarah of Thomas & Elizabeth Weaver born Nov. 6.
 Jonathan of Lawrence & Hannah Waters born Oct. 3.
 William of John & Hannah Wiswall born Oct. 10.
 Joseph of Joseph & Abigail Walker born Dec. 8.
 Anna of Isaac & Susanna White born Jan. 10.
 Abigail of William & Abigail Wright born Jan. 15.
 Henry of James & Mary Warden born Jan. 20.
 Richard of Isaac & Dorcas Woodde born Feb. 1.
 John of John & Elizabeth Wensley born Feb. 8.
 Martha } of John & Elizabeth Webber born Feb. 18.
 Mary } of John & Elizabeth Webber born Feb. 18.
 Sarah of Henry & Sarah Wright born Feb. 19.
 William of William & Joanna Williams born Feb. 25.
 Mehetable of Thomas & Mary Waller born Feb. 18.
 Sarah of John & Deliverance Wakefield born Mar. 1.
 Joseph of Joseph & Mary Wheeler born Mar. 15.
 Joanna of Samuel & Joanna Ward born Mar. 24.
 Mary of Timothy & Naomi Yeale born Jan. 11.

FIRST CHURCH.

Elizabeth of John Lowell	8 day	1 mo.
Henry of sister Elizabeth Bridgham	15 day	1 mo.
Phebe of sister Eglon	22 day	1 mo.
Joseph of sister Dudson	29 day	1 mo.
Deborah of Hope Allen's wife	29 day	1 mo.
of sister Starkey	29 day	1 mo.
Freegrace of Freegrace Bendall	5 day	2 mo.
of Timothy Thornton	5 day	2 mo.
Thomas of sister Wheeler	10 day	3 mo.
Joseph of sister Wheeler	10 day	3 mo.
Samuel of sister Wheeler	10 day	3 mo.
Benjamin of sister Wheeler	10 day	3 mo.
Rebecca of bro: Crichley	10 day	3 mo.
children of sister Johanna Ward	24 day	3 mo.
of sister Leveritt	7 day	4 mo.
of Samuel Williams	21 day	4 mo.
of sister Squire	21 day	4 mo.
of William Smith	12 day	5 mo.
Pen of Pen Townsend	2 day	5 mo.
Philip of Nathaniel Renolds	20 day	7 mo.
children of John Butolph		8 mo.
of Ephraim Searle	1 day	9 mo.
child of sister Travise	1 day	9 mo.
child of bro: Manninge	1 day	9 mo.
of sister Parmiter	22 day	9 mo.
{ John of John Thwinge	6 day	10 mo.
{ ——— his sister	6 day	10 mo.
Sarah of sister Winsor	6 day	10 mo.
Mary of brother Jackson	27 day	10 mo.
Samuel of bro: How	3 day	11 mo.
John of brother Griggs	3 day	11 mo.
Mary of James Townsend	10 day	11 mo.
Samuel of Deacon Allen	17 day	11 mo.
John of sister Cowell	17 day	11 mo.
Susanna of bro: Clow Junior	31 day	11 mo.
Phebe of bro: Sweat	14 day	12 mo.
Anne of bro: Sweat	14 day	12 mo.

1675.

TOWN.

Ebenezer of Henry Allin born Jan. 30.
 Mehetable of Samuel & Mary Emõns born Feb. 6.
 Madett of Samuel & Mary Eings born Sept. 25.
 John of Lott Gorden born May 4.
 Samuel of Samuel & Anna Haugh born Feb. 1.
 John of John & Martha Hunt born Mar. 24.
 Hephzibah of Gershom & Sarah Hobart born Feb. 16.
 John of John Mellowes born Mar. 5.
 Samuel of Caleb Stretton born Mar. 3.
 Elizabeth of John & Eliza. Woodmansey born Mar. 3.
 Mary of Robert Williams born Dec. 2.
 Elizabeth of Samuel Wakefield born Mar. 2.
 Elisha of Joseph & Grace Webb born Feb. 13.
 Nathll. of Nathll. & Mary Williams born Aug.

FIRST CHURCH.

Martha of sister Jackson	14 day	1 mo.
John of sister Williams	21 day	1 mo.
Elizabeth of sister Williams	21 day	1 mo.
John of John Ballantine	4 day	2 mo.
Hannah of Elisha Audlin	4 day	2 mo.
Abigail of Elisha Audlin	4 day	2 mo.
Elisha of Elisha Audlin	4 day	2 mo.
another	4 day	2 mo.
William of sister Ruth Younge	11 day	2 mo.
Elisha of Elisha Audlin	25 day	2 mo.
James of sister Mavericke	25 day	2 mo.
Martha of sister Mavericke	25 day	2 mo.
William of John Brookings	16 day	3 mo.
Joseph of sister Belshar of Winesimet	6 day	4 mo.
—— presented by Henry Messenger	6 day	4 mo.
William of sister Greeneleaffe	13 day	4 mo.
Mary of sister Bosworth	13 day	4 mo.
another	13 day	2 mo.
Peletiah } of George Munioye	20 day	4 mo.
Gershon } of George Munioye	20 day	4 mo.
John of sister Alcocke	20 day	4 mo.
Samuel of Samuel Bridges	20 day	4 mo.
William of John Ballentine	20 day	4 mo.
Hannah of Edward Allen	20 day	4 mo.
Mercy of Jonathan Bridgham	12 day	7 mo.
Samuel of sister Skinner	12 day	7 mo.
of John Dyer	19 day	7 mo.
Moore	26 day	7 mo.
sister Orchard	26 day	7 mo.
Tho: son of David Coppe	10 day	8 mo.
Thomas of Timothy Thornton	21 day	9 mo.
Edward of Edward Thwinge	28 day	9 mo.
Presented by Mr Stoddard name Phebe	28 day	9 mo.
Gamaliel of Persival Clerke	12 day	10 mo.
Scarlet of Freegrace Bendall	19 day	10 mo.
John of Henry Tompson	19 day	10 mo.
Ebenezer of Henry Allene	6 day	12 mo.
Robert } of sister Wakum	6 day	12 mo.
William } of sister Wakum	6 day	12 mo.
Hannah } of sister Wakum	6 day	12 mo.
James } of sister Wakum	6 day	12 mo.

Elizabeth of sister Hannah Wakum
 Elisha of bro: Web
 Susanna of John Clough
 Thomas of James Allen
 Hannah of John Moore
 John Ruggles

27 day 12 mo.
 27 day 12 mo.

May 22.

March 16.

1676.

TOWN.

Mary of Edward Ash born Apr. 28.
 David of David Adams born May 23.
 Mary of Jonathan Adams born Apr. 26.
 Rachel of Hope Allen born May 16.
 Peter of Peter Andle born May 8.
 Samuel of Samuel Aliack born Aug. 18.
 Hannah of William & Mehetable Avis born Sept 28.
 Ephraim of Henry & Judith Allen born Jan. 4.
 Elizabeth of James & Elizabeth Allison born Dec. 11.
 Jane of Timothy & Joanna Armitage born Nov. 10.
 Deborah of Arthur Brancum born May 11.
 Margaret of John Bull born May 19.
 Mary of Mary Buckway born July 14.
 Mary of Edward & Dorothy Budd born July 14.
 Lydia of John & Lydia Ballentine born June 2.
 Robert of Robert & Elizabeth Butcher born Aug. 15.
 Manassah of Manassah & Mary Beck born Oct. 6.
 Thomas of Thomas & Lydia Batt born May 22.
 Sarah of Jeremiah & Sarah Bumstead born Aug. 15.
 Benjamin of Roger Burges born Nov. 20.
 Robert of John & Susanna Bowers born Oct. 24.
 Thomas of Thomas & Mary Bishop born Dec. 19.
 William of William & Ellener Baker born Feb. 12.
 Susanna of Peter & Mary Bennet born Aug. 23.
 Ruth of Joseph & Hannah Belknap born Mar. 17.
 Mercy of John & Eliza Brooking born Dec. 15.
 Henry of Joseph & Sarah Bridgham born Dec. 16.
 John of John Clough born May 2.
 William of William Clarke born Apr. 29.
 Sarah of William Coleman born June 5.
 Joshua of John Cott born June 27.
 Sarah of John Comes born July 13.
 Henry of Henry Coole born July 27.
 Jeremiah of John Cowell born July 25.
 Mary of William Castle born July 11.
 Naomi of Matthew & Naomi Collins born Sept. 15.
 Ann of Joseph & Susanna Cock born June 10.
 Elizabeth of Richard & Jane Cleare born May 28.
 George of Charles & Judith Crosthrwayt born Mar. 3.
 Mehetable of Andrew & Mehetable Clarke born Dec. 8.
 Elizabeth of David & Eliza. Comins born Nov. 26.
 Josiah of Josiah & Deborah Cobham born Dec. 7.
 Sarah of John & Sarah Clarke born Jan. 17.
 Abigail of Robert Dudson born Mar. 25.
 Thomas of Thomas Duglas born July 11.
 William of Mary Day born Aug. 9.
 Mary of John Davenport born Aug. 23.
 Rebecca of Eleazer & Rebecca Davenport born Aug. 7.
 Mary of Francis & Martha Dudson born Apr. 16.
 Elizabeth of John & Mary Drewry born July 9.
 Sarah of Sampson & Sarah Dewer born Oct. 22.

William of William & Hannah Downe born Feb. 2.
John of John & Mary Davis born Apr. 19.
Thomas of Peter Edgerton born Sept. 16.
Mehetable of Thomas & Mary Eldredge born Oct. 8.
Susanna of David & Mary Edwards born Oct. 29.
Lydia of George & Lydia Ellistone born May 24.
Robert of Robert & Bethiah Emõns born Mar. 23.
Mary of Joseph Farnham born May 14.
Ellener of Jeremiah & Sarah Fitch born Aug. 20.
Benjamin of James & Hannah Flood born Feb. 1.
Samuel of Hopestill & Elizabeth Foster born Dec. 27.
Benjamin of Benjamin & Kathar Franklyn born Jan. 28.
Sarah of William Greenhalgh born May 2.
Hannah of Erasmus Garrett born May 20.
Ebenezer of Nathanll. Green born June 12.
Bethiah of Enoch Greenleafe born Aug. 11.
Elizabeth of John Gilbert born Sept. 2.
Samuel of William & Ruth Greenough born Aug. 31.
Susanna of Joseph & Eliza. Gridley born Aug. 10.
James of William & Hannah Gibson born Mar. 24.
Elizabeth of Edward & Eliza. Goodin born Nov. 25.
Henry of William & Ann Gerrish born Aug. 18.
Joseph of Joseph & Martha Gillam born Mar. 30.
John of John Hagget born May 1.
Lydia of William Huffle born June 20.
Elizabeth of William & Ann Hobby born Oct. 18.
Francis of Samuel & Abigail Hudson born Aug. 15.
Mary of Elisha & Han: Hutchinson born Oct. 1.
Abigail of Experience & Abigail Harris born Nov. 28.
Richard of Richard & Mary Hunt born Aug. 4.
John of John & Anne Hubbard born Jan. 9.
Samuel of Ephraim & Sarah Hall born Dec. 25.
Anna of Samuel & Anna Haugh born Jan. 27.
Mary of James & Sarah Harris born Feb. 3.
John of John & Martha Hunt born Mar. 24.
Elizabeth of Benja. & Elizabeth Hord born Feb. 28.
Josiah of Josiah & Hannah Helman born Sept. 28.
Abigail of Eliakim & Sarah Hutchinson born Mar. 7.
George of George & Abigail Hatherly born Oct. 28.
Hannah of William & Hannah Harris born July 1.
Archiball of James Ingles born Sept. 25.
John of Samuel Jackson born May 1.
Mary of William James born Apr. 25.
Samuel of Samuel & Phoebe Johnson born Dec. 15.
Mary of Andrew & Martha Judson born Apr. 20.
Thomas of Samuel & Mary Jenkins born Dec. 29.
Hannah of Samuel & Elizabeth Judkin born Feb. 14.
John of John & Elizabeth Jackson born Mar. 12.
Mary of Peter & Mary King born Feb. 4.
Ebenezer of John Liscum born Apr. 29.
Thomas of John Larkin born May 9.
Patience of Samuel & Deliverance Legg born Aug. 29.
William of John & Naomi Lowell born Jan. 3.
William of William & Margaret Lovering born Feb. 26.
Samuel of John Mosse born Nov. 13.
Elizabeth of Jacob Mason born Apr. 23.
Fairbanck of Samuel Mattock born Feb. 11.
Katherine of John Materick born Sept. 16.
Hannah of James & Elizabeth Meers born Jan. 28.
Margaret of Thaddeus & Elizabeth Maccarty born Feb. 25.
Hannah of John & Lydia Moore born Feb. 23.
Edward of Edward & Jane Mortimore born June 10.
Samuel of Samuel & Ruth Marshall born Oct. 7.
David of James & Selphina Morgan born Nov. 10.

Susanna of William Norton born June 25.
 John of Richard & Ann Narramore born Sept. 10.
 Thomas & } of Nicholas Neales born May 20.
 Henry } of Nicholas Neales born May 20.
 Sarah of John Orris born Aug. 14.
 Joseph of William Porter born June 15.
 William of William Palfrey born July 22.
 Lydia of Joseph Pearce born Aug. 11.
 Joseph of Benja. & Ellener Phippen born Nov. 30.
 Joanna of John & Joanna Prescott born Jan. 6.
 Joseph of John & Mary Pell born Mar. 5.
 Lydia of John & Judith Parmiter born Jan.
 John of James Richards born July 3.
 William of John Ruggles born July 22.
 John of John Ricks born Aug. 16.
 John of Samuel Ruggles born Mar. 15.
 Mary of Thomas Ricks born Oct. 1.
 Margaret of William & Ann Rawson born Aug. 1.
 Charles of Humphry & Mehetable Richards born Oct. 8.
 Joseph of Nathanll. & Priscilla Reynolds born Dec. 29.
 Mary of William & Sarah Rouse born Dec 29.
 Benjamin of John Shaw born Mar. 24.
 Elizabeth of Joseph Sweat born July 7.
 Sarah of Constantine Sams born May 21.
 Hannah of Ephraim Savage born Aug. 7.
 Sarah of Æneas Salter born Aug. 1.
 Elizabeth of Edward Shippen born Aug. 21.
 William of Philip & Rachel Squire born Oct. 15.
 Elizabeth of Savil & Sarah Sympson born Nov. 4.
 Mehetable of Robert & Mehetable Smith born June 24.
 Mary of Joseph & Elizabeth Soper born May 28.
 Sarah of Samuel & Sarah Snow born June 21.
 Robert of Robert & Elizabeth Streete born Apr. 5.
 Elizabeth of Robert & Ann Shelstone born Nov. 19.
 Obadiah of Ephraim & Alice Sale born Dec. 9.
 Sarah of John & Sarah Stanbridge born Jan. 23.
 Sarah of John & Elizabeth Skinner born Jan. 4.
 Richard of Richard & Margaret Smith born Jan. 6.
 Rebecca of John & Rebecca Scottow born Mar. 1.
 Peter of Elias & Mary Stiffe born Feb. 23.
 Martha of Thomas & Ann Sheepscot born Mar. 16.
 Joseph of John & Martha Saffin born Jan 24.
 William of Robert & Sarah Sedgewick born June 9.
 Rebecca of Thomas & Rebecca Smith born Mar. 24.
 Mary of John & Sarah Skeath born Mar. 22.
 William of John Taylor born May 21.
 Mary of Jonathan Tyng born Jan. 16.
 Solomon of Samuel Townsend born Aug. 1.
 Robert of John & Sarah Tucker born May 14.
 Mary of George & Mary Tucker born Aug. 20.
 Joanna of John & Kesiah Tucker born Dec. 20.
 Martha of John & Martha Temple born Feb. 14.
 Benjamin of Edward Vein born May 25.
 Mary of John & Mary Viall born Oct. 10.
 John of Thomas & Mary Varnee born Dec. 1.
 John of John Winchester born Apr. 17.
 Abigail of John Warren born May 10.
 Experience of Experience Willis born May 28.
 Hannah of Nathaniel Whiteing born July 3.
 John of John Winchcomb born July 22.
 Anstis of John & Anstis Wilkins born Aug. 17.
 Sarah of Thomas & Mary Waller born Nov. 5.
 Simon of Samuel & Abigail Willard born Dec. 6.
 Thomas of Thomas & Elizabeth Williams born Jan. 1.

Peter of Peter & Sarah Warren born Apr. 20.
 Daniel of Joseph & Lydia Williams born Dec. 25.
 Mary of Henry & Sarah Wright born Feb. 14.
 William of John & Hannah Wiswall born Jan. 27.
 John of George & Rachel Waldron born Aug. 21.

FIRST CHURCH.¹

John of John Cotte	2 day 5 mo.
Mary of John Davenport	17 day 7 mo.
Lydia of sister Travis	17 day 7 mo.
John of William Griggs	24 day 7 mo.
David of sister Duer	8 day 8 mo.
Deborah of sister Litherland	8 day 8 mo.
Child of Edward Goodwin	3 day 10 mo.
Simon of Samuel Willard	10 day 10 mo.
Elizabeth of Ephraim Sale	10 day 10 mo.
—— Allen	7 day 11 mo.
—— Lowell	7 day 11 mo.
Hutchinson Thomas Jr.	9 day 11 mo.
John Temple	9 day 11 mo.
Edward Ashley	9 day 11 mo.
—— Moore	25 day 11 mo.
Hannah of William Griggs	Sept. 22.
Elisha of Elisha Hutchinson	22 Jan.
Elizabeth of Elisha Hutchinson	22 Jan.
Hannah of Elisha Hutchinson	22 Jan.
Thomas of Elisha Hutchinson	22 Jan.
Martha of John Temple	Feb. 15.
Hannah of John Moore	

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TOWN.

Hope of Hope & Hannah Allen born June 18.
 Jonathan of Jonathan & Eliza. Armitage born Aug. 24.
 Nathan of John & Elizabeth Alden born Oct. 17.
 Mary of Nathanll. & Mary Adams born Sept. 23.
 Rebecca of Jeremiah & Sarah Belcher born Apr. 11.
 Lydia of Charles & Elizabeth Benmur born Feb. 27.
 Nathaniel of James & Hannah Brading born June 17.
 Susanna of Philip & Susanna Blake born June 26.
 Amy of Thomas & Amy Bridge born June 9.
 Mary of Nathanll. & Mary Barnes born June 4.
 Joseph of Samuel & Mercy Bosworth born July 22.
 Sarah of John & Rebecca Bully born July 26.
 Ellen of Samuel & Hannah Bridge born Aug. 4.
 Perne of George & Perne Broughton born June 15.
 Sarah of John & Aphra Bennet born June 13.
 Mary of Thomas & Esther Bucknel born Aug. 26.
 Sarah of Samuel & Anne Burnell born Aug. 20.
 Thomas of Thomas & Christian Baker born Sept. 16.
 Elizabeth of John & Elizabeth Barrell born Apr. 4.
 Abigail of John & Susanna Bennet born Sept. 24.
 Elizabeth of John & Abigail Broughton born Sept. 22.
 Nathaniel of Nathanll. & Deborah Byfield born Nov. 14.

¹ For several years the records were so carelessly kept as to be very uncertain and of little value. — W. S. A.

Henry of Jonathan & Eliza. Bridgeham born Nov. 2.
 Mary of John & Anne Balston born Dec. 8.
 James of James & Sarah Burroughs born Jan. 28.
 Stephen of Stephen & Abigaile Burton born Aug. 8.
 Nathaniel of Nathaull. & Mary Barnes born Mar. 20.
 Mary of Arthur & Deborah Branscomb born July 25.
 James of Thomas & Mary Beard born Jan. 30.
 Elizabeth of Robert & Martha Cox born Apr. 15.
 Martha } of Joseph & Mary Clement born Apr. 13.
 Mary } of Joseph & Mary Clement born Apr. 13.
 Frances of Francis & Mary Cooke born May 15.
 Sarah of John & Hannah Courser born Apr. 13.
 John of John & Anne Collins born May 26.
 Sarah of John & Susanna Cross born May 21.
 Sarah of Elisha & Elizabeth Cooke born July 31.
 Elizabeth of John & Elizabeth Cleare born Aug. 15.
 Samuel of John & Martha Clarke born Sept. 21.
 Sarah of Nicholas & Esther Crarey born Nov. 14.
 Jacob of Thomas & Martha Cox born Jan. 4.
 Uriah of Uriah & Joanna Clarke born Oct. 5.
 Samuel of John & Mary Clough born Nov. 22.
 Sarah of William & Sarah Clarke born Jan. 27.
 Hannah of John & Hannah Cowell born Mar. 9.
 Hannah of Peter & Rachel Codner born Feb 1.
 John of William & Sarah Cooke born Mar. 8.
 Mary of John & Mary Dafforn born Apr. 15.
 Elijah of Roger & Ann Doubleday born Apr. 13.
 Mary of John & Anne Dinsdall born May 19.
 John of John & Mary Davis born July 24.
 Mary of Thomas & Sarah Dolberry born Apr. 13.
 Benjamin of John & Mary Dyer born July 15.
 Mary of Giles & Hannah Dyer born June 28.
 William of Adam & Hannah Dinsdall born Aug. 24.
 Elizabeth of Henry & Elizabeth Dering born July 18.
 Joseph of Ambrose & Mary Dawes born Oct 21.
 Mercy of John & Mary Drewry born Oct. 25.
 Rebecca of Thomas & Ann Deane born Dec. 7.
 Hannah of John & Elizabeth Dare born Dec. 18.
 Paul of Paul & Mary Dudley born Mar. 4.
 Samuel of Edward & Hannah Davis born Feb. 28.
 Hannah of Robert & Hannah Earle born May 1.
 Mary of Joseph & Mary Emerson born July 13.
 John of William & Phoebe Eglin born May 15.
 Samuel of Henry & Elizabeth Eems born Aug. 26.
 Mercy of Joseph & Mercy Eliot born Aug. 31.
 Edmund of Peter & Clement Edgerton born Oct. 17.
 Thomas of Thomas & Hannah Eliot born Oct. 14.
 Henry of Henry & Joanna Ellice born Sept. 11.
 Mary of John & Eliza. Faireweather born Apr. 23.
 Elizabeth of John & Mehetable Frost born July 12.
 Abigail of Daniel & Sarah Fairfield born Nov. 6.
 Samuel of Patrick & Sarah Facit born Dec. 29.
 Charles of Joseph & Mary Farnham born Feb. 8.
 Olive of John & Olive Furnell born Mar. 24.
 Deliverance of Thomas & Margaret Forbush born Dec. 18.
 William of William & Hannah Gibson born Apr. 14.
 Jacob of Jacob & Mercy Gully born June 25.
 Benjamin of Benj. & Hannah Gillam born June 5.
 Abigail of Thomas & Elizabeth Gross born Oct. 25.
 Obadiah of Obadiah & Elizabeth Gill born Oct. 8.
 Thomas of Peter & Sarah Goulding born Jan. 23.
 Nathaniel of William & Rebecca Gilbert born Jan. 6.
 Knight of Joseph & Martha Gillam born Jan. 30.
 Samuel of Samuel & Mary Greenwood born Mar. 6.

Consider son of William & Ruth Greenough born Mar. 7.
 Stephen of John & Anna Greenleaf born Mar. 5.
 Elizabeth of Edmond & Hannah Gatch born June 5.
 Susanna of John & Susanna Harrison born Mar. 28.
 George of George & Mary Hooper born Apr. 14.
 Joseph of William & Decline Holowel born May 5.
 Mary of Jeremiah & Mehetable Howard born June 7.
 Daniel of Daniel & Mary Henschman born June 16.
 Robert of John & Sarah Howard born May 26.
 John of John & Hannah Harwood born June 7.
 Mary of John & Silence Hayward born June 5.
 Ann of John & Joanna Howen born July 3.
 Sarah of John & Elizabeth Harris born Aug. 2.
 Samuel of Joshua & Hannah Hews born Sept. 8.
 George of George & Mary Hare born Sept. 15.
 Sarah of John & Sarah Holland born Sept. 21.
 Thomas of Thomas & Joanna Hunt born Sept. 30.
 Mary of Thomas & Sarah Harris born Oct. 3.
 Dorothy of Gershom & Sarah Hobart born Dec. 6.
 Ephraim of Thomas & ——— Hunt born Apr. 17.
 Rachel of Samuel & Rachel Holman born Sept. 20.
 Atherton of Samuel & Anne Haugh born Jan. 12.
 George of William & Prudence Harrison born Feb. 26.
 Elizabeth of James & Elizabeth Howard born Feb. 6.
 Samuel of Samuel & Lydia Holmes born Nov. 14.
 Rachel of James & Elizabeth Hews born Nov. 1.
 Thomas of John & Elizabeth Indicot born Feb. 21.
 Mary of John & Rebecca Jarvis born Apr. 12.
 Jeremiah of Jeremiah & Faith Jackson born June 11.
 Mary of John & Sarah Johnson born Sept. 2.
 Hannah of Samuel & Hannah Johnson born Jan. 22.
 Robert of Thomas & Susanna Jolls born June 2.
 Elizabeth of Roger & Elizabeth Judd born Mar. 3.
 John of William & Hannah Long born May 15.
 Francis of Francis & Elizabeth Lyford born May 31.
 William of William & Jane Lancaster born Sept. 10.
 Susanna of Phillip & Mary Langden born Oct. 23.
 Jane of Charles & Bethiah Lidgett born June 14.
 Henry of Henry & Jane Lunt born Dec. 5.
 Samuel of Samuel & Mary Lynde born Nov. 27.
 Mehetable of John & Naomi Lowell born Jan. 7.
 Abigail of Increase & Maria Mather born Apr. 13.
 Ann of John & Abigail Mulberry born Aug. 26.
 Rachel of Henry & Rachel Maddox born Sept. 2.
 Mercy of Joel & Rebecca Madever born Aug. 12.
 William of William & Ruth Mumford born June 2.
 Sarah of John & Elizabeth Morse born Nov. 24.
 Elizabeth of John & Margaret Marsh born June 7.
 Dorcas of James & Dorcas Maxwell born Feb. 27.
 Joseph of Samuel & Mary Mason born Nov. 24.
 Lydia of Arthur & Rebecca Mosier born Feb. 25.
 Paul & } of Edward & Sarah North born Aug. 14.
 Sarah } of Edward & Sarah North born Aug. 14.
 Samuel of John & Mehetable Newton born Jan. 23.
 Rebecca of Experience & Abigail Orris born Mar. 11.
 Sarah of Thomas & Sarah Pemberton born June 7.
 Abigail of Seth & Abigail Perry born June 23.
 Mary of Samuel & Mary Pearse born Aug. 3.
 Courtney of John & Elizabeth Poole born Nov. 9.
 George of William & Elizabeth Porter born Nov. 21.
 Elizabeth of John & Hannah Peas born Jan. 15.
 Mary of John & Mary Pollard born Mar. 8.
 Andrew of Samuel & Margaret Ruck born Apr. 14.
 Edward of William & Ann Rawson born Sept. 6.

Samuel of Samuel & Sarah Ruggles born Sept. 14.
 Susanna of Thomas & Sarah Rootes born Sept. 30.
 Nathan of John & Susanna Rainsford born Jan. 14.
 Solomon of John & Charity Ricks born Jan. 10.
 Sarah of Solomon & Priscilla Rainsford born Feb. 4.
 Mary of Caleb & Eliza. Rawlins born Mar. 10.
 Obadiah of Obadiah & Susanna Read born Nov. 29.
 Mary of Simeon & Mary Stoddard born Apr. 15.
 Dinah of Joseph & Eliza. Souther born Apr. 13.
 Rebecca of Thomas & Martha Squire born Apr. 8.
 John of Samuel & Hannah Sewall born Apr. 2.
 Nathaniel of John & Sarah Shaw born May 15.
 Edward of Robert & Mehetable Smith born June 7.
 Catharine of Richard & Hannah Sharp born May 9.
 Joseph of Richard & Joyce Smith born June 9.
 Elizabeth of James & Sarah Stevens born June 11.
 Ann of Joseph & Ann Stocker born July 26.
 Bethiah of Rowland & Bethiah Storey born July 15.
 Elizabeth of Thomas Junr. & Eliza. Savage born Aug. 4.
 Hannah of John & Jane Sparrey born Sept. 15.
 Isaac of Thomas & Susanna Stanbury born Oct. 31.
 Sarah of Robert & Sarah Sedgewick born Dec. 19.
 Mehetable of Sampson & Mehetable Sheafe born Dec. 10.
 Mary of Benja. & Mercy Sanderson born Nov. 29.
 Rebecca of Thomas & Elizabeth Skinner born Jan. 22.
 Samuel of Ephraim & Alice Sale born Feb. 11.
 Edward of Edward & Elizabeth Shippen born Feb. 10.
 Rebecca of Joseph & Rebecca Smith born Dec. 17.
 Sarah of Arthur & Sarah Smith born Aug. 12.
 Mary of Stephen & Dorothy Sergeant born July 5.
 John of Pilgrim & Catharine Simpkins born Mar. 22.
 Margaret of William & Margaret Snelling born June 20.
 Simon of Cyprian & Mary Stevens born Aug. 13.
 Sarah of Penn & Sarah Townsend born Apr. 3.
 Margaret of Peter & Margaret Townsend born June 13.
 Nathan of Thomas & Mary Townsend born July 5.
 Alice of Henry & Eliza. Thompson born Sept. 8.
 Nathaniel of Theophilus & Hannah Thornton born Aug. 15.
 Mary of Richard & Elizabeth Tout born Oct. 15.
 Maria of John & Maria Thwing born Apr. 12.
 Dorothy of Joseph & Dorothy Townsend born Nov. 17.
 Thomas of Edward & Elizabeth Thwing born Dec. 14.
 Joseph of James & Elizabeth Townsend born Jan. 24.
 Ruth of Bartho: & Damaris Threeneedle born Feb. 27.
 Elizabeth of Timothy & Experience Thornton born Nov. 17.
 Lydia of Daniel & Anne Turell born Jan. 17.
 Elizabeth of William & Mary Trowte born Mar. 3.
 Abigail of Edward & Abigail Tuttle born Feb. 14.
 Peter of Isaac & Mary Vergoose born Feb. 17.
 Stephen of Lawrance & Hannah Waters born Apr. 3.
 Joanna of Joseph & Abigail Walker born May 5.
 Abigail of Lionel & Abigail Wheatly born June 9.
 Rebecca of Sampson & Rebecca Waters born May 28.
 Thomas of John & Mary Wells born June 30.
 Joseph of Joseph & Sarah Winslow born June 16.
 Hannah of Richard & Bethiah Way born July 13.
 Isaac of Isaac & Priscilla Waldron born June 23.
 Hannah of Richard & Hannah West born July 6.
 Eunice of John & Eunice Wayt born July 11.
 William of Joshua & Sarah Winsor born Sept. 2.
 John of John & Sarah Walley born Nov. 7.
 Joanna of John & Mary Williams born Nov. 22.
 Mercy of Thomas & Susanna Walker born Jan. 7.
 Jonathan of Joseph & Mary Wheeler born Dec. 26

Samuel of John & Delivera. Wakefield born Jan. 15.
 John of John & Eliza. Williams born Feb. 8.
 Samuel of William Jr. & Abigail Wright born Feb. 17.
 James of Robert & Margery Williams born Feb. 20.
 Samuel of William & Constant Wooster born Dec. 23.
 John of John & Elizabeth Warren born Feb. 10.
 Elizabeth of Experience & Elizabeth Willis born Dec. 8.
 Joseph of Peter & Eliza. Welcome born Feb. 2.
 Obadiah of Obadiah & Susanna Wakefield born Nov. 11.
 Elizabeth of Nathnll. & Mary Williams born Feb. 28.
 Thomas of John & Susanna Wilkins born Jan. 18.
 Joseph of Richard & Bathshua Williams born Mar. 7.
 Hannah of John & Hannah Walker born Apr. 25.

FIRST CHURCH.

James of William Gibson	5 day 1 mo.
—— of bro: Saffin	12 day 1 mo.
Elizabeth of sister Jackson	18 day 1 mo.
John of sister Jackson	18 day 1 mo.
—— of sister Pecke	25 day 1 mo.
Pen of Pen Townsend	8 day 2 mo.
—— sister Cox	8 day 2 mo.
a Grandchild of Henry Messenger	15 day 2 mo.
a Grandchild of John Viall	15 day 2 mo.
John of John Ballentine	6 day 3 mo.
William of sister Dinsdale	26 day 6 mo.
Eilen of Samuel Bridge	5 day 6 mo.
Mary of John Thwing	April.
Samuel Ruggles	Sept. 15.

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TOWN.

Mehetable of David & Hannah Adams born Apr. 17.
 Mary of John & Constant Alcock born May 3.
 Elizabeth of Bozoune & Rachel Allen born July 17.
 Dorcas of Jonathan & Rebecca Adams born June 27.
 Isaac of William & Mehetable Avis born May 1.
 John of John & Desire Amce born Nov. 3.
 Joseph of Henry & Judith Allen born Sept. 15.
 Stephen of Charles & Eliza: Benmore born May 25.
 Mary of Nicholas & Elizabeth Boone born June 19.
 Richard of Samuel & Mary Boswell born June 9.
 Martha of John & Mary Bull born Aug. 7.
 Dorothy of Edward & Dorothy Bud born July 23.
 John of John & Susanna Butler born June 29.
 Jacob of Thomas & Sarah Baker born Sept. 25.
 Judith of Nathaniel & Judith Blague born Sept. 23.
 Thomas of Moses & Eliza. Bradford born Nov. 20.
 Ebenezer of Jeremiah & Sarah Belcher born Feb. 21.
 Ebenezer of Timothy & Abigail Batt born Dec. 15.
 Ruth of Josiah & Ranis Belcher born Dec. 21.
 Abigail of Joseph & Hannah Belknap born Jan. 27.
 Mehetable of Manassah & Mary Beck born Jan. 13.
 Deborah of Nathanll. & Deborah Byfield born Feb. 2.
 Sarah of Oliver & Gartright Berry born Jan 28.
 Jonathan of John & Mary Briggs born Mar. 22.
 Jeremiah of Jerem. & Sarah Bumstead born Oct. 14.

Jonathan of John & Eliza. Brooking born Oct. 18.
 Edward of George & Mary Briggs born Aug.
 John of Ralph & Susanna Carter born May 8.
 Mary of William & Eliza. Coleman born May 10.
 Sarah of Matthew & Naomi Collins born Dec. 7.
 Emm of John & Mary Chantrel born Apr. 15.
 Jane of Thomas & Jane Clarke born Mar. 20.
 Rebecca of Samuel & Deborah Clement born July 10.
 Elizabeth of Nathanll. & Elizabeth Cane born Aug. 22.
 James of David & Elizabeth Cumins born Sept. 19.
 John of John & Sarah Coney born Sept. 17.
 Jonathan of John & Anne Carter born June 9.
 Mercy of Thomas & Anne Cooke born Nov. 11.
 William of John & Ellener Comer born Nov. 28.
 Elizabeth of Jonathan & Elizabeth Corwin born May 5.
 Sarah of Matthew & Naomi Collins born Dec. 7.
 Elisha of Elisha & Elizabeth Cooke born Dec. 20.
 Charles of Charles & Judith Crosthwayt born Feb. 3.
 Richard of Richard & Sarah Cowell born Oct. 5.
 Ruamma of Perciful & Elizabeth Clarke born Apr. 4.
 Samuel of Gilbert & Frances Cole born Nov. 30.
 Joanna of John & Mary Cotta born Nov. 13.
 George of George & Mary Cray born Aug. 15.
 Benjamin of John & Mary Crary born Mar. 30.
 Benjamin of Leonard & Mercy Dowding born May 20.
 Nathaniel of Eleazer & Rebecca Davenport born June 20.
 John of John & Mary Dafforne born Aug. 3.
 Anthony of Anthony & Anna Dious born July 27.
 William of William & Mary Dinsdall born Sept. 5.
 Ann of Sampson & Sarah Dewer born Sept. 25.
 John of John & Mary Drury born Dec. 26.
 Samuel of Joseph & Elizabeth Davis born Mar. 3.
 Jane of William & Jane Deane born Mar. 12.
 Martha of Francis & Martha Dudson born Mar. 18.
 Joseph of Joseph & Elizabeth Eldredge born Apr. 16.
 Nathaniel of Samuel & Mercy East born Apr. 2.
 Elizabeth of William & Sarah Eustis born July 4.
 Mary of Robert & Hannah Earle born Dec. 20.
 Deborah of John & Susanna Ellice born Feb. 22.
 Mary of Henry & Elizabeth Emes born Nov. 23.
 Abigail of Thomas & Jane Eliot born Feb. 12.
 Elizabeth of Peter & Mary Edgerton born Mar. 5.
 Samuel of Samuel & Mary Eings born Aug. 17.
 William of William & Elizabeth Fisher born July 10.
 Joseph } of John & Dorothy Foy born Aug. 11.
 Benja. } of John & Dorothy Foy born Aug. 11.
 Ellener of Edward & Sarah Fowle born July 26.
 Mary of John & Lydia Foster born Mar. 13.
 Thomas of John & Joane Gee born May 15.
 Ruth of Matthew & Ellener Gross born May 12.
 William of William & Hannah Griggs born June 23.
 Benjamin of William & Hannah Gibson born Sept. 8.
 William of Gyles & Mary Goidard born Aug. 4.
 Agnes of Edmund & Joanna Gatch born Jan. 23.
 Elizabeth of William & Sarah Greene born Jan. 29.
 Lydia of Samuel & Lydia Holmes born Mar. 26.
 George of George & Hannah Henley born May 9.
 Thomas of William & Dorothy Hawkins born May 22.
 Martha of John & Martha Hunt born June 5.
 Edward of Elisha & Eliza. Hutchinson born June 18.
 Thomas of Nicholas & Mary Hall born July 3.
 Samuel of John & Joanna Hunlock born July 26.
 James of James & Mary Harrington born May 9.
 Samuel of Thomas & Abigail Hatherly born Mar. 17.

William of John & Ann Hubbard born at Ipswich Dec. 15.
Lydia of Henry & Lydia Ingram born Apr. 18.
Joseph of James & Joanna Ingles born May 23.
Elizabeth of John & Elizabeth Jackson born Jan. 30.
John of Thomas & Abigail Kellond born June 15.
Sarah of Nicholas & Sarah Knell born June 29.
John of Benja. & Phoebe Langdon born May 20.
Samuel of Joseph & Abigail Lowle born July 13.
Deborah of Zibeon & Rachel Lytherland born Oct. 2.
John of William & Jane Lancaster born Oct. 3.
Hannah of Jacob & Rebecca Mason born May 25.
Hannah of James & Elizabeth Meers born June 2.
Sarah of Richard & Sarah Middlecot born May 20.
Jonathan of Edmund & Eliza Mountfort born June 15.
John of John & Lydia Meers born July 5.
Elizabeth of Hosea & Grace Mellot born Apr. 19.
Lucey of Arthur & Joanna Mason born Aug. 11.
Elizabeth of Edward & Jane Mortimore born Aug. 19.
John of John & Martha Morton born Jan. 13.
John of John & Margaret March born Jan. 8.
John of Samuel & Ruth Marshal born March 19.
John of Thomas & Anna Norton born Aug. 14.
Rachel of John & Mary Neeland born Sept. 2.
John of John & Susanna Nichols born Feb. 28.
John of Elisha & Abigail Odlin born May 25.
Elizabeth of Peter & Hannah Odlin born Nov. 21.
Sweet of John & Susanna Oliver born Jan. 16.
Nathaniel of John & Ruth Peirce born Apr. 10.
Elizabeth of George & Elizabeth Purkis born May 16.
Elizabeth of Thomas & Hannah Pemberton born June 17.
Elizabeth of Thomas & Susannah Plinly born June 20.
Nathaniel of John & Mary Pittum born July 8.
Edmund of Edmund & Susanna Perkins born May 8.
William of Thomas & Esther Platts born Aug. 1.
Thomas of Thomas & Elizabeth Peck born Sept. 12.
Thomas of William & Constant Palfrey born Oct. 5.
Elizabeth of John & Elizabeth Playstead born Nov. 7.
Mehetable of William & Sarah Penny born Nov. 21.
Ann of Richard & Martha Pattishal born Dec. 11.
Joseph of Joseph & Hannah Priest born Mar. 18.
Elizabeth of William & Elizabeth Porter born Feb. 23.
William of William & Sarah Rouse born May 25.
Ruth of John & Mary Ross born Apr. 9.
Obadiah of Obadiah & Susanna Read born Nov. 29.
Edward of William & Anne Rawson born Aug. 29.
Isaac of Abraham & Abigail Spencer born Mar. 17.
Thomas of Thomas & Rebecca Smith born May 13.
Mary of Philip & Margaret Stratton born May 10.
Rebecca of John & Rebecca Scottow born June 21.
Mary of Sampson & Susanna Stoddard born June 13.
Mary of Robert & Ann Shelstone born June 1.
Samuel of Samuel & Hannah Sewall born June 11.
Thomas of Thomas & Margaret Stapleford born June 29.
Samuel of Samuel & Mary Snow born July 20.
Jabez of Jabez & Elizabeth Salter born July 8.
John of Robert & Elizabeth Street born Dec. 9.
Simon of Cyprian & Mary Stevens born Aug. 13.
Anthony of Simeon & Mary Stoddard born Sept. 24.
Sarah of Ephraim & Sarah Savage born Oct. 27.
Samuel of Samuel & Susanna Sexton born Jan. 25.
Peter of Æneas & Joan Salter born Feb. 13.
John of Philip & Rachel Squire born Aug. 16.
Elias of Thomas & Sarah Smith born Mar. 6.
Mary of John & Margaret Spry born July 12.

Rebecca of John & Sarah Skeath born Mar. 4.
 John of Fearnot & Bethiah Shaw born Mar. 30.
 Richard of Constantine & Elizabeth Sams born Oct. 7.
 John of Thomas & Mary Tauley born Apr. 7.
 John of John and Mary Trough born Mar. 28.
 Benjamin of John & Sarah Tucker born June 21.
 Lydia of Daniel & Anne Turell born Jan. 17.
 Deborah of Nathaniel & Deborah Thayer born Aug. 22.
 William of William & Leah Tower born Aug. 29.
 John of Joseph & Mariana Tapping born Aug. 12.
 Robert of Henry & Mary Tarleton born Oct. 6.
 Benjamin of Benja: & Abigail Thwing born July 20.
 Benjamin of Richard & Martha Tewell born Nov. 13.
 Elias of Samuel & Abigail Townsend born Mar. 2.
 Elizabeth of William & Mary Timberlake born Mar. 3.
 Jane of John & Elizabeth Usher born Mar. 2.
 Joseph of John & Mary Viall born Jan 5.
 Jane of Thomas & Mary Waller born June 23.
 Solomon of Benjamin & Rebecca Williams born July 4.
 John of John & Josabeth Wing born Aug. 7.
 Elizabeth of John & Mary Winchcombe born Sept. 8.
 Mary of Thomas & Mary Wells born Mar. 25.
 Benjamin of George & Constant Waldron born Apr. 24.
 John of John & Elizabeth Webber born Mar. 23.
 Mary of Jacob & Mary Wilkins born Jan. 2.
 Ebenezer of Henry & Sarah Wright born Jan. 1.
 Elizabeth of John & Elizabeth Webber born Jan. 25.
 Ann of Edward & Elizabeth Winslow born Aug. 7.
 Priscilla of Isaac & Priscilla Waldron born Dec. 6.
 Arabella of John & Elizabeth Whaley born Mar. 5.
 Henry of Obadiah & Susannah Wakefield born Sept. 17.
 Mary of Samuel & Hannah Winslow born June 8.

FIRST CHURCH.

Edward of Elisha Hutchinson
 John of John Odlin
 William of William Griggs
 John of John Moore

23d June.
 28 May.
 June.
 Feb.

1679.

TOWN.

Bridget of John & Bridget Aires born June 20.
 John of John & Hannah Aulgar born Aug. 13.
 Jane of Timothy & Joanna Armitage born Oct. 6.
 Eleazer son of Jona: & Elizabeth Armitage born Oct. 20.
 Sarah of James & Sarah Allen born Sept. 13.
 Joseph of Joseph & Elizabeth Arnold born Mar. 21.
 Jeremiah of Samuel & Mercy Bosworth born May 13.
 Mary of John & Susannah Bradish born May 12.
 Jonathan of Jona. & Elizabeth Balston born July 10.
 Samuel of Samuel & Anne Burnell born Oct. 9.
 Thomas of Thomas & Sarah Baker born Jan. 3.
 John of John & Esther Barnell born Aug. 13.
 William of Samuel & Hannah Bridge born Aug. 31.
 Nicholas of Nicholas & Elizabeth Boone born Aug. 10.
 Ruth of Thomas & Mary Barber born Feb. 4.
 Josias of Thomas & Mary Beard born Dec. 4.

William of John & Lydia Ballentine born Aug. 23.
 Rebecca of Joseph & Rebecca Brisco born Sept. 16.
 John of John & Mehetable Benjamin born Sept. 4.
 Samuel of William & Persis Browne born Sept. 25.
 Rebecca of Robert & Rebecca Bronsdon born Oct. 7.
 John of John & Sarah Burgis born Oct. 21.
 Isabell of Nathanl. & Mary Barnes Oct. 23.
 Mary of James & Sarah Burroughs born Oct. 30.
 Josiah of Thomas & Mary Beard born Dec. 4.
 James of Jonathan & Eliza. Bridgeham born Jan. 12.
 John of John & Sarah Balston born Jan. 31.
 Caleb of Thomas & Esther Brental born Feb. 29.
 Mary of George & Sarah Briggs born Dec. 6.
 Ruth of Josiah & Deborah Cobham born Mar. 30.
 Joanna of John & Joanna Carthew born Apr. 4.
 Humphry of Robert & Rebecca Combey born Sept. 3.
 Joseph of Joseph & Susanna Cock born Sept. 15.
 Jonathan of John & Margaret Courser born Sept. 29.
 Sarah of Richard & Sarah Covell born Oct. 21.
 John of John & Hannah Clap born Nov. 11.
 Elizabeth of Sampson & Elizabeth Cole born Nov. 19.
 Thomas of Uriah & Joanna Clarke born Nov. 29.
 Robert of John & Sarah Coney born Dec. 12.
 Mercy of John & Susanna Cross born Dec. 28.
 William of William & Rachel Clarke born Dec. 30.
 Jane of Thomas & Jane Clarke born Mar. 16.
 John of John & Deliverance Corpe born Mar. 18.
 Joseph } of John & Anne Dinsdall born May 25.
 Hannah } of John & Anne Dinsdall born May 25.
 Elizabeth of John & Elizabeth Dyer born July 1.
 Mary of Richard & Mary Drew born Oct. 14.
 Anna of Sampson & Sarah Dewer born Nov. 7.
 Robert of Robert & Sarah Darbey born Nov. 30.
 Elizabeth of Henry & Elizabeth Dering born Jan. 5.
 Mary of Leonard & Mercy Dowding born Jan. 24.
 Benjamin of Benja. & Mary Dunning born Mar. 3.
 Elizabeth of Joseph & Elizabeth Eldredge born July 30.
 Sweet of David & Mary Edwards born Sept. 9.
 Elizabeth of John & Elizabeth Emett born Sept. 24.
 Mary of Thomas & Mary Eldridge born Nov. 19.
 Elizabeth of Asaph & Elizabeth Elliott born Feb. 14.
 James of Thomas & Mary Farney born May 21.
 Solomon of Samuel & Anne Flack born June 15.
 Mary of John & Sarah Flood born Aug. 14.
 Abigail of James & Hannah Flood born Sept. 25.
 Christian of John & Eliza. Fayerweather born Sept. 20.
 Edward of Edward & Eliza. Goodwin born Apr. 9.
 Grace of John & Joane Gee born May 25.
 Thomas of Benjamin & Hannah Gillam born Aug. 10.
 Elizabeth of Daniel & Elizabeth Greenland born May 28.
 Sarah of Peter & Sarah Goulding born Aug. 19.
 John of John & Hannah Goffe born Sept. 18.
 Samuel of Obadiah & Elizabeth Gill born Nov. 23.
 Rebecca of William & Rebecca Gibson born Jan. 20.
 Elizur of Elizur & Mary Holyoke born Mar. 28.
 Ann of Thomas & Judith Hunt born May 11.
 John natural son of John Hudson & Mary Mitchelson born Aug. 2.
 Elizabeth of John & Elizabeth Herbert born Sept. 1.
 Marke of John & Mary Hands born Oct. 27.
 Rebecca of William & Prudence Harrison born Oct. 31.
 Mary of George & Sarah Hiskett born Nov. 14.
 Powell of Anthony & Margaret Haywood born Nov. 18.
 Eliakim of Eliakim & Sarah Hutchinson born Dec. 3.
 William of William & Judith Hasey born Dec. 21.

Rebecca of John & Rebecca Hagget born Jan. 16.
 James of James & Lydia Hawkins born Jan. 22.
 Martha of Joseph & Sarah Hurd born Jan. 25.
 Mary of Joseph & Sarah Hurd born Jan. 25.
 Mehetable of Elisha & Eliza. Hutchinson born Feb. 6.
 Hannah of Nicholas & Mary Hale born Mar. 1.
 Joanna of John Jennings & Joanna Holland born Jan. 31.
 John of Henry & Lydia Ingram born Jan. 3.
 Sarah of John & Elizabeth Indecot born Mar. 15.
 Edward of Samuel & Phoebe Johnson born Aug. 1.
 Mary of Samuel & Mary Jenkins born Aug. 23.
 Sarah of Jonatha. & Eliza. Jackson born Oct. 9.
 Rebecca of John & Rebecca Jarvis born Jan. 27.
 Jonathan of Samuel & Mercy Jackline born Feb. 28.
 David of Roger & Elizabeth Judd born Mar. 3.
 Jane of Peter & Mary King born Feb. 9.
 Benjamin of John & Naomi Lowle born Nov. 5.
 Rebecca of Joseph & Rebecca Lawrance born Nov. 13.
 Hannah of Samuel & Elizabeth Lynde born Jan. 1.
 Thomas of Arthur & Rebecca Mosier born Sept. 22.
 David of James & Dorcas Maxwell born Aug. 31.
 Elizabeth of William & Ruth Mumford born Sept. 2.
 Sarah of Thomas & Elizabeth Mercer born Oct. 21.
 Abigail of Joshua & Elizabeth Matson born Nov. 3.
 James of John & Mary Mills born Nov. 10.
 Thomas of John & Lydia Moore born Nov. 26.
 Mary of Henry & Rachel Maddocks born Dec. 21.
 Catharine of Thaddens & Elizabeth Maccarty born Jan. 23.
 Nathaniel of Nathaniel & Deborah Man born Jan 27.
 John of John & Mary Nevil born Sept. 14.
 Ebenezer of John & Elizabeth Paine born Apr. 25.
 Hannah of John & Sarah Place born July 10.
 Mehetable of Lisle & Esther Palmer born Apr. 13.
 John of John & Elizabeth Palmer born Aug. 28.
 Lydia of John & Mary Pell born Sept. 7.
 Rebecca of Job & Rebecca Prince born Nov. 12.
 William of William & Cathariné Paine born Nov. 14.
 John of John & Mary Price born Jan. 2.
 William of John & Elizabeth Poole born Jan. 7.
 Elizabeth of Hugh & Mary Perrin born Jan. 12.
 Samuel of John & Mary Pollard born Jan. 16.
 Rebecca of John & Ruth Peirce born Feb. 15.
 Elizabeth of Joseph & Sarah Peck born Feb. 29.
 Mary of Thomas & Susanna Plimble born Mar. 6.
 Rebecca of William & Rebecca Pasmore born Oct. 26.
 Mary of Peter & Joane Papillaus born Jan. 29.
 Elizabeth of John & Charity Ricks born Oct. 3.
 Rachel of William & Ann Rawson born Oct. 16.
 Ann of Caleb & Elizabeth Rawlins born Oct. 25.
 Elizabeth of William & Sarah Rowse born Dec. 20.
 Margaret of William & Eliza. Robins born Dec. 22.
 Nathaniel of Solomon & Priscilla Rainsford born Feb. 23.
 James of Obadiah & Anne Read born Feb. 29.
 John of Thomas & Eliza. Skinner born Apr. 2.
 Abigail of Rowland & Bethiah Storey born Apr. 3.
 Martha of Thomas & Martha Squire born May 22.
 Joseph of John & ——— Stanbridge born June 10.
 Isabella of George & Esther Sigsworth born Sept. 23.
 Mary of Philip & Rachel Squire born Oct. 12.
 John of John & Elizabeth Skinner born Oct. 13.
 Nathaniel of Ephraim & Alice Sale born Oct. 21.
 William of William & Hannah Sumner born Nov. 22.
 William of Jabez & Elizabeth Salter born Jan. 5.
 Hannah of Samuel & Hannah Sewall born Feb. 3.

Joseph of John & Jane Sparrey born Feb. 16.
 Anna of Robert & Ann Shelstone born Feb. 22.
 Abraham of Abraha. & Abigail Spencer born Mar. 5.
 John of Nathanll & Elizabeth Togood born Apr. 20.
 Lydia of Benja. & Abigail Thwyng born July 20.
 Priscilla of Thomas & Mary Townsend born Sept. 20.
 Joshua of William & Ruth Turner born Sept. 28.
 Mary of John & Martha Temple born Oct. 6.
 Sarah of Joseph & Sarah Turell born Oct. 31.
 John of William & Leah Towers born Nov. 1.
 Ann of Timothy & Experience Thornton born Nov. 7.
 Sarah of Bartho. & Damaris Threeneedle born Nov. 9.
 Abigail of John & Kesiah Tucker born Nov. 10.
 Robert of Edward & Elizabeth Thwyng born Jan. 9.
 Mary of Thomas & Mary Thatcher born Jan. 28.
 Mary of Thomas & Mary Tough born Mar. 11.
 Edward of Edward & Abigail Tuttle born Jan. 2.
 Hannah of Joseph & Lydia Williams born May 26.
 Benjamin of George & Rachel Waldron born May 22.
 Anna of Richard & Martha Wharton born May 26.
 Samuel of John & Elizabeth Walley born Aug. 4.
 Oliver of Nathanll & Mary Williams born Aug. 21.
 John of Wait & Mary Winthrop born Sept. 12.
 Charles of John & Mary Winchcomb born Sept. 29.
 Richard of Richard & Martha Wells born Nov. 2.
 Joshua of Joshua & Sarah Winsor born Nov. 7.
 Elizabeth of John & Anna Williams born Dec. 5.
 Sarah of Samuel & Sarah Walker born Dec. 10.
 Jacob of Robert & Margery Williams born Dec. 19.
 Susanna of John & Susanna Wilkins born Dec. 22.
 Return of Return & Martha Wait born Dec. 28.
 Sarah of John & Eliza. Woodmansey born Jan. 8.
 Ephraim of Henry & Sarah Wright born Mar. 4.

FIRST CHURCH.

Mehetabel of Elisha Hutchinson	Feb. 8.
Sarah of James Allen	Sept. 14.
Joseph of John Fayreweather	Dec. 24.
Mary of John Fayreweather	Dec. 24.
Christian of John Fayreweather	Dec. 24.
Mary of John Temple	Oct. 7.
William of Samuel Bridge	31 day 6 mo.
Elizabeth Dyer	6 day 5 mo.
John Skinner	19 day 8 mo.
Mary Emmons	2 day 9 mo.
Benjamin Thornton	
Thomas of John Moore	Nov.
Elizabeth of bro. Dering	Jan.
Joseph Orchard	Aug.

1680.

TOWN.

John of Daniel & Mariana Allin born June 19.
 Henry of Henry & Judith Allen born July 8.
 Milam of John & Constance Alcock born Aug. 8.
 Mary of Matthew & Martha Aulgar born Jan. 19.
 Sarah of Thomas & Sarah Barnes born May 24.
 John of William & Mary Bodkyn born Mar. 25.

Elizabeth of Nathaniel & Deborah Byfield born Apr. 1.
 William of William & Ellener Baker born May 30.
 Alexander of Josiah & Mary Baker born June 8.
 John of Thomas & Mary Barber born Feb. 14.
 John of James & Frances Blackburn born July 11.
 Brocke of Thomas & Mary Baker born July 28.
 Elizabeth of Charles & Mary Blinco born Aug. 12.
 Matthew of John & Esther Bernard born Aug. 26.
 James of James & Temperance Barnes born Sept. 28.
 — daughter of Stephen & Abigail Burton born Oct. 16.
 Ann of John & Ann Balston born Nov. 27.
 Samuel of John & Mary Bull born Dec. 19.
 Theophilus of Samuel & Lois Bligh born Dec. 23.
 Mehetable of Manassah & Mary Beck born Dec. 27.
 Hugh of Hugh & Susanna Babel born Mar. 3.
 Benjamin of Josiah & Ranis Belcher born Mar. 20.
 Mary of Jonas & Mary Clay born Apr. 27.
 William of William & Elizabeth Coleman born May 2.
 John of Charles & Jeduthan Crosthwayt born May 7.
 Ruth of Thomas & Anne Cooke born May 18.
 Thomas of Gilbert & Frances Cole born June 14.
 Thomas of John & Ellener Comer born Sept. 6.
 William of George & Mary Cray born Sept. 27.
 Mehetable of John & Hannah Cowell born Oct. 3.
 Staines of Robert & Anne Cole born Jan. 19.
 Deliverance of John & Elizabeth Cotta born Jan. 26.
 Sarah of John & Sarah Cragg born Feb. 9.
 Naomi of Matthew & Naomi Collins born May 1.
 Hannah of John & Hannah Clap born Feb. 14.
 Margaret of John & Palti Dorrell born July 21.
 Abigail of William & Abigaile Davis born Mar. 28.
 Mary of Joseph & Hannah Dious born Apr. 20.
 Sarah of Benja. & Sarah Davis born May 20.
 Thomas of Thomas & Mary Davis born July 10.
 Thomas of Ambrose & Mary Dawes born Nov. 1.
 Rachel of John & Rachel Drake born Nov. 21.
 Isaac of John & Mary Dafforne born Nov. 30.
 Elizabeth of Leonard & Mercy Dowding born Feb. 22.
 Anna of Gershom & Sarah Davis born Mar. 20.
 Sarah of Henry & Joanna Ellis born Oct. 17.
 John of John & Catharine Eades born Oct. 25.
 Elizabeth of Robert & Hannah Earle born Nov. 16.
 John of Henry & Elizabeth Emes born Nov. 30.
 Elizabeth of George & Ruth Edwards born Dec. 20.
 Hannah of Thomas & Hannah Elliott born Mar. 3.
 Mary of Samuel & Mary Eings born May 23.
 Lydia of John & Lydia Foster born Oct. 22.
 Daniel of Daniel & Ruth Fairfield born Dec. 1.
 Elizabeth of John & Frances Francis born Jan. 15.
 William of John & Dorothy Foy born Mar. 6.
 Mary of Jacob & Mary Gulley born Apr. 18.
 Sarah of James & Sarah Goffe born May 2.
 Abraham of Lott & Elizabeth Gourden born June 4.
 Priscilla of Samuel & Mary Greenwood born June 13.
 John of John & Hannah Green born June 23.
 Joseph of Nathanl & Mary Green born July 13.
 Samuel of James & Rebecca Green born July 20.
 John of Valentine & Mary Giles born Aug. 10.
 Elizabeth of William & Hannah Gibson born Nov. 27.
 Joshua of John & Joane Gee born Jan. 19.
 Samuel of John & Hannah Greenleafe born Feb. 26.
 Mary of Thomas & Elizabeth Gross born Jan. 18.
 Sarah of Richard & Elizabeth Harris born June 17.
 Isaac of James & Elizabeth Hughs born June 20.

Samuel of Thomas & Rebecca Harris born July 23.
James of James & Abigail Howard born Aug. 7.
Bridget of Humphrey & Sarah Horrel born Sept. 1.
Benjamin of William & Hannah Hoare born Sept. 5.
Edward of Elizur & Mary Holyoke born Sept. 30.
Mary of Richard & Mary Hunt born Oct. 3.
Nathaniel of John & Ann Hubbard born Oct. 13.
Asaph of James & Sarah Harris born Nov. 10.
Robert of John & Joanna Howen born Dec. 17.
Sarah of James & Dinah Halsey born Dec. 23.
Edward of Ephraim & Sarah Hall born Jan. 29.
Ephraim of Thomas & Judith Hunt born Feb. 17.
Elizabeth of William & Hannah Harris born Sept. 11.
John of John & Jane Jacob born May 12.
William of William & Lydia Jeffery born July 12.
Desire of Aaron & Mary Jeffers born Dec. 13.
Elizabeth of John & Hannah Jones born Dec. 18.
Daniel of Samuel & Mary Jenkins born Jan. 18.
Rebecca of Richard & Hannah Knight born Oct. 14.
Joseph of Henry & Elizabeth Kerbey born Jan. 4.
William of Jane Lancaster born May 6.
Elizabeth of James & Susanna Lindall born July 16.
Elizabeth of John & Sarah Larkin born Aug. 29.
Mary of Samuel & Mary Lynde born Nov. 16.
Grace of Thomas & Grace Levenworth born Feb. 8.
Nathaniel of John & Naomi Lowle born Feb. 25.
Mary of Isaac & Mary Lewis born Mar. 1.
Jacob of Jacob & Rebecca Mason born Apr. 23.
John of James & Elizabeth Meers born May 12.
Hannah of William & Hannah Milbourn born May 19.
Abigail of William & Eliza. Middleton born Mar. 22.
Hannah of Increase & Maria Mather born May 30.
Joshua of Joshua & Elizabeth Matson born June 30.
Richard of Edward & Jane Mortimore born Aug. 10.
Catharine of Robert & Joane Mansfield born Sept. 12.
Jonathan of James & Salphin Morgan born Nov. 19.
Abigail of John & Abigail Mulberry born Jan. 8.
Moses of Paul & Jemina Maverick born Feb. 8.
Elisha of John & Sarah Mellows born Mar. 16.
Elizabeth of John & Elizabeth Needham born Nov. 23.
John of George & Mary Newby born Dec. 25.
Elias of Elias & Joanna Oakeman born Apr. 21.
Elizabeth of Nathanll & Mary Oliver born —.
Hannah of Peter & Hannah Odlin born Mar. 3.
Sarah of George & Elizabeth Purkis born Apr. 1.
Yelverton of Seth & Dorothy Perry born Apr. 12.
Mary of William & Elizabeth Porter born Apr. 30.
Elizabeth of Joseph & Lydia Peirse born May. 5.
Mary of John & Mary Pittom born May 18.
James of Thomas & Hannah Pemberton born June 4.
Sarah of Moses & Mary Peirse born June 19.
Mary of John & Elizabeth Peck born July 5.
John of Edmund & Susanna Perkins born Oct. 14.
Moses of Moses & Hannah Patrick born Nov. 3.
Job of Job & Rebecca Prince born Nov. 10.
Thomas of William & Sarah Payne born Nov. 15.
Joanna of John & Sarah Place born Jan. 7.
John of John & Mary Price born Mar. 12.
John of George & Sarah Ripley born Mar. 31.
Thomas of Jeremiah & Martha Raper born July 16.
Sarah of James & Sarah Ropes born Nov. 20.
George of George & Elizabeth Robinson born Dec. 28.
Thomas of John & Charity Rix born Jan. 22.
Christian of Sampson & Susanna Stoddard born May 11.

Jane of Samuel & Dorcas Stocker born July 1.
 Habakuk of Thomas & Rebecca Smith born July 7.
 Samuel of Thomas & Rebecca Smith born July 7.
 Sarah of Edward & Mary Smith born July 16.
 John of Obadiah & Sarah Sale born July 23.
 Jane of Savil & Sarah Simpson born Sept. 13.
 Arthur of Thomas & Elizabeth Savage born Mar. 29.
 Mary of Ephraim & Sarah Savage born Nov. 10.
 Mehetable of Sampson & Mehetable Sheafe born Nov. 27.
 Mary of Edward & Esther Stevens born June 15.
 John of John & Hannah Somes born Jan. 14.
 Ruth of Joseph & Ruth Shaw born Feb. 3.
 Elizabeth of Simeon & Mary Stoddard born Feb. 10.
 Hannah of Thomas & Mary Tawley born Apr. 16.
 Richard of William & Mary Tout born May 8.
 William of James & Mary Twisdell born June 11.
 John of John & Mary Trough born July 13.
 Nicholas of Nicholas & Christian Tribah born Aug. 31.
 Elisha of Thomas & Mary Townsend born Sept. 9.
 Sarah of Penn & Sarah Townsend born Sept. 14.
 Rachel of John & Maria Thwyng born Jan. 31.
 Elizabeth of Edward & Elizabeth Thwyng born Feb. 7.
 Josiah of Josiah & Sarah Torrey born Feb. 9.
 Elizabeth of John & Rebecca Tayler born —.
 Anthony of John & Elizabeth Underwood born May 2.
 John of John & Eunice Wayt born Apr. 2.
 William of James & Eliza. Whetcombe born Apr. 21.
 Hannah of Peter & Hannah Warren born May 19.
 Lydia of Jacob & Mary Wilkenson born May 30.
 Henry of William & Persis Way born June 7.
 Priscilla of Isaac & Priscilla Waldron born June 23.
 Edward of Samuel & Eunice Willard born July 6.
 Hannah of John & Sarah Walley born July 23.
 John of John & Mary White born Aug. 12.
 Joanna of John & Jehosheba Wing born Nov. 25.
 Joseph of Michael & Elizabeth Willis born Jan. 4.
 Sanderson of Richard & Hannah West born Feb. 5.
 Benjamin of Benja. & Palsg: Walker born Jan. 4.
 Naomi of Giles & Ruth Young born Dec. 16.
 John of Roger & Elizabeth Yelings born Aug. 30.

John Harker & Patience Fowler were married by John Richards Esq. Assist.
 Dec. 14.

FIRST CHURCH.

Rebecca Gibson	
Mary Eldridge	
Jonathan of Sam Jacklin	May 11.
Christian dautr. of Sampson Stoddard	May
Jsack of James Hughes	
Mary of Jo: Pecke	July 5.
John of John Wayte	April 2.
Henry of Henry Allin	July 8.
John of Obadiah Sale	July 23.
Joseph of Nathan Green	July 23.
Sarah of Pen 'Townsend	
Sarah of John Moore	Nov.
Margaret of Palti Dorrell	
Rebecca of Rich. Knight	
Thomas of Ambrose Dawes	
Daniel of Daniel Fayrefield	
Margaret of sister Dorrell born July 21	July 25.
William Fisher born 25 Jan. 168—	Feb. 4.

1681.

TOWN.

Mary of Daniel & Mariana Allin born June 30.
Isaac of David & Hannah Adams born Aug. 7.
Mary of Thomas & Mary Ashley born Sept. 1.
Sarah of John & Elizabeth Alden born Sept. 27.
Elizabeth of Timothy & Joanna Armitage born Oct. 17.
Nathaniel of Jonathan & Rebecca Adams born Nov. 21.
Lydia of Bozoun & Lydia Allen born Mar. 7.
Joanna of Robert & Joanna Breck born June 12.
Abigail of Nathanll & Mary Barnes born Apr. 2.
Stephen of Stephen & Tabitha Butler born Apr. 22.
Abraham of Joseph & Hannah Belknap born Apr. 26.
Mary of Thomas & Mary Bridle born June 25.
Ann of William & Susanna Baker born July 1.
Elizabeth of Thomas & Elizabeth Barnard born July 4.
Mary of James & Sarah Burgis born July 2.
William of John & Eliza. Brooking born Sept. 17.
Thomas of Aaron & Hannah Beard born Sept. 23.
Abigail of Samuel & Hannah Bridge born Sept. 27.
John of John & Esther Barnard born Nov. 6.
Hannah of Moses & Elizabeth Bradford born Nov. 15.
George of Thomas & Sarah Baker born Dec. 30.
Martha of John & Elizabeth Brown born Jan. 8.
Joseph of Joseph & Rebecca Brisco born Jan. 4.
Elizabeth of Jonathn. & Eliza. Bridgeham born Jan. 22.
John of Thomas & Mary Baker born Feb. 14.
Elizabeth of Josiah & Mary Baker born Feb. 26.
Charles of Charles & Mary Blinco born Jan. 12.
William of William & Rebecca Clarke born Mar. 31.
Mary of John & Mary Clarke born May 3.
Thomas of Thomas & Jane Clarke born June 3.
Sarah of Samuel & Rachel Clarke born July 14.
Jane of John & Hannah Collier born July 20.
John of John & Margaret Courser born Aug. 29.
Bartholomew of Richard & Abigail Cheever born Sept. 9.
Theodore of Elnathan & Tomasin Chauncey born Oct. 1.
Hannah of Caleb & Sarah Chapin born Jan. 4.
John of Uriah & Joanna Clarke born Feb. 10.
Elizabeth of Mungo & Mary Crafford born May 19.
Martha of Peter & Rachel Codner born Sept. 7.
Nathaniel of John & Elizabeth Dyer born Oct. 17.
Margaret of Benja. & Sarah Davis born Oct. 28.
Samuel of Gershom & Sarah Davis born Nov. 11.
Thomas of Sampson & Sarah Dewer born Nov. 23.
Elizabeth of Griffin & Elizabeth Edwards born June 17.
Rachel of Samuel & Mary East born Jan. 5.
Christopher of Richard & Jane English born Jan. 27.
Thomas of Francis & Sarah Ellis born Feb. 1.
John of John & Mary Frost born May 16.
John of James & Hannah Flood born Aug. 3.
John of John & Lydia Foster born Feb. 5.
Dorothy of Thomas & Dorothy Gretian born Mar. 29.
Newman of William & Eliza. Greenough born Apr. 2.
Edmund of Edmund & Joanna Gage born July 3.
Nathaniel of John & Susanna Gardner born July 20.
Obadiah of Obadiah & Elizabeth Gill born Dec. 2.
Ellener of William & Hannah Gibson born Jan. 22.
Sarah of John & Elizabeth Herbert born Apr. 12.
Lydia of James & Lydia Hawkins born Aug. 24.

Richard of George & Mary Hooper born May 3.
 Elizabeth of Thomas & Anne Hill born Apr. 28.
 Mary of Joseph & Sarah Hurd born May 8.
 Elisha of Elisha & Eliza. Hutchinson born May 16.
 Samuel of Samuel & Rachel Holman born June 7.
 Thomas of Thomas & Mary Hunt born Aug. 21.
 Mary of Elizur & Mary Holyoke born Sept. 1.
 Sarah of Joseph & Hannah Hasey born Sept. 13.
 Sarah of Robert & Elizabeth Howard born Sept. 17.
 Rebecca of Thomas & Rebecca Harris born Nov. 8.
 Thomas of William & Sarah Hunt born Mar. 23.
 Sarah of John & Patience Harker born Sept. 21.
 Aaron of Henry & Lydia Ingraham born Oct. 31.
 Jane of John & Jane Jacob born Sept. 8.
 Thomas of John & Eliza. Jackson born Oct. 5.
 Richard of Thomas & Susanna Kellond born Sept. 26.
 Elizabeth of John & Rachel Kinde born Nov. 30.
 William of William & Hannah Milborne born May 28.
 Robert of Hugh & Ellener Mullegin born Aug. 9.
 Naomi of William & Ruth Mumford born Aug. 18.
 Rebecca of Jacob & Rebecca Mason born Aug. 24.
 Sarah of John & Sarah Mason born Aug. 25.
 Susanna of James & Dorcas Maxwell born Aug. 27.
 Thomas of Samuel & Ruth Marshall born Nov. 1.
 John of Samuel & Hannah Marion born Dec. 25.
 Catharine of John & Lydia Moore born Feb. 5.
 John of John & Sarah Melleson born Dec. 20.
 John of Elisha & Abigail Odlin born Nov. 18.
 Sarah of Nathanll & Eliza. Oliver born Jan. 7.
 John of Seth & Dorothy Perry born Aug. 23.
 Elizabeth of Samuel & Elizabeth Philps born Sept. 5.
 Nathaniel of Nathanll & Christian Peirse born Oct. 2.
 Thomas of Samuel & Elizabeth Parris born Oct. 25.
 William of Thomas & Esther Platts born Nov. 24.
 Jane of Samuel & Mary Peacock born Dec. 19.
 Ruth of William & Ruth Penney born Dec. 15.
 Mary of Moses & Mary Peirse born Jan. 22.
 John of Thomas & Susanna Plimley born Jan. 25.
 William of William & Constance Palfrey born Feb. 17.
 Peter of Peter & Jone Papillaus born Mar. 6.
 Hannah of Samuel & Hannah Phillips born Mar. 8.
 Hannah of Joseph & Hannah Priest born Mar. 20.
 Sarah of Samuel & Sarah Phillips born Mar. 21.
 Samuel of Edmund & Mary Ranger born Mar. 29.
 Dyonisia of Samuel & Dyonisia Ravenscroft born Apr. 12.
 John of John & Mary Roberts born July 16.
 Dorothy of William & Ann Rawson born Aug. 8.
 Jemina of Samuel & Jemina Ruggles born Aug. 12.
 Hannah of Nathanll & Priscilla Reynolds born Jan. 15.
 William of John & Charity Ricks born Feb. 6.
 Sarah of John & Sarah Strange born Apr. 6.
 Jacob of John and Sarah Stanbridge born Apr. 17.
 Anna of William & Anna Smith born May 10.
 John of Thomas & Rebecca Smith born July 6.
 Abigail of Obadiah & Sarah Sale born Aug. 6.
 Martha of Thomas & Martha Squire born Aug. 9.
 Mary of Ephraim & Mary Sale born Aug. 21.
 Joanna of John & Sarah Skeath born Aug. 24. .
 Joseph of Joseph & Ann Stocker born Sept. 18.
 Thomas of Robert & Esther Scott born Oct. 13.
 Savil of Savil & Sarah Simpson born Oct. 15.
 Rebecca of Thomas & Rebecca Smith born Oct. 20.
 Ebenezer of Philip & Rachel Squire born Nov. 3.
 Abigail of Eleazer & Martha Starr born Nov. 26.

Abigail of Samuel & Hannah Sewall born Dec. 29.
 Samuel of John & Elizabeth Sawdey born Feb. 8.
 Susanna of Robert & Ann Shelstone born Feb. 12.
 Jacob of Sampson & Mehetable Sheafe born Feb. 18.
 Humphrey of Joseph & Sarah Turell born May 21.
 Timothy of Timothy & Experience Thornton born May 6.
 Sarah of William & Leah Tower born June 10.
 Nathaniel of Nathaniel & Deborah Thayer born July 11.
 Sarah of James & Sarah Twisdell born Aug. 11.
 Samuel of John & Kesiah Tucker born Sept. 7.
 John of John & Lucey Turner born Nov. 1.
 Mary of David & Joanna Thomas born Jan. 2.
 Sarah of John & Martha Temple born Jan. 7.
 Eliza. of Edward & Elizabeth Thwyng born Feb. 19.
 Peter of George & Rebecca Thomas born Feb. 6.
 Mary of Edward & Abigail Tuttle born Aug. 31.
 John of John & Anstis Wilkins born April 2.
 Humphry of Jonathan & Sarah Wade born May 1.
 Josiah of Samuel & Eunice Willard born June 21.
 Joseph of William & Constance Wooster born June 22.
 Mercy of Samuel & Sarah Walker born July 5.
 Priscilla of Isaac & Priscilla Waldron born July 12.
 Martha of Return & Martha Wayt born Aug. 4.
 John of Wait & Mary Winthrop born Aug. 26.
 William of James & Eliza. Whetcombe born Sept. 9.
 Prudence of Samuel & Mary White born Oct. 5.
 Thomas of Joseph & Mary Wheeler born Nov. 1.
 Elizabeth of Robert & Margery Williams born Nov. 8.
 Ann of Gabriel & Mary Warner born Dec. 3.
 Elizabeth of Cornelius & Priscilla White born Dec. 29.
 John of John & Mary Winchcombe born Jan. 3.
 Elizabeth of Nathaniel & Mary Williams born Jan. 22.
 John of John & Eliza. Woodmansy born Jan. 28.
 Grace of John & Eunice Wayt born Feb. 7.
 Jane of Jacob & Mary Wilkinson born Feb. 13.
 Abigail of Michael & Elizabeth Willis born Mar. 12.
 Mehetable of Henry & Sarah Wright born Mar. 22.

FIRST CHURCH.

John of John Odlin	20 Nov.
Sarah Tucker	Sept. 25.
Wates. of John Fayreweather	Dec. 11.
Hannah of Wm Griggs	May 30.
Sarah of John Temple	January.
Abigail of Samuel Bridge	20 day 8 mo.
Rachel of John Thwing	Feby. 6.
Catharine of John Moore	Dec.
Vertue Orchard	Sept.

1682.

TOWN.

Benjamin of Henry & Judith Allen born Apr. 4.
 Samuel of John & Sarah Aulgar born Apr. 8.
 Hannah of John & Constance Alcock born Nov. 5.
 Thomas of Thomas & Mary Ashley born Dec. 3.
 Katharine of Daniel & Mariana Alline born Dec. 15.
 Elizabeth of William & Mary Bodkin born Aug. 15.
 Mary of Josias & Mary Baker born May 26.

Benjamin of Nathanll & Mary Barnes born Mar. 30.
 Ruth of Samuel & Lois Bligh born Mar. 31.
 Peter of James & Temperance Barnes born May 1.
 John of John & Anne Balston born May 16.
 Sarah of Samuel & Mary Bodman born June 2.
 Joseph of John & Charity Baily born Aug. 21.
 Ebenezer of Manassah & Mary Beck born Aug. 23.
 William of Samuel & Hannah Bickner born Sept. 20.
 Mary of James & Mehetable Bill born Oct. 10.
 Lydia of John & Lydia Ballantine born Oct. 24.
 John of Thomas & Mary Buck born Feb. 27.
 Mary of Thomas & Mary Barber born Feb. 25.
 Joseph of Thomas & Esther Barnell born Dec. 18.
 Edward of Edward & Mary Bicknell born Dec. 20.
 Elizabeth of Thomas & Mary Beard born Apr. 9.
 Thomas of Charles & Mary Blinco born Dec. 12.
 Mary of Philip & Sarah Bass born May 15.
 Dorothy of Richard & Sarah Covell born Mar. 27.
 John of John & Sarah Carter born Aug. 8.
 Susanna of Richard & Abigail Cheever born Aug. 27.
 Elizabeth of Francis & Sarah Carlile born Oct. 2.
 Staines of Robert & Anne Cole born Dec. 10.
 Jeremiah of William & Elizabeth Condey born Jan. 2.
 William of John & Hannah Cowell born Jan. 25.
 John of John & Susanna Cross born Mar. 3.
 John of John & Sarah Center born Aug. 8.
 Hannah of Caleb & Sarah Chapin born Jan. 4.
 Paul of Paul & Mary Dudley born Apr. 26.
 Mary } of Henry & Elizabeth Dering born May 18.
 Martha } of Henry & Elizabeth Dering born May 18.
 Margaret of William & Abigail Davis born May 29.
 Elizabeth of Richard & Mary Drew born July 23.
 Joseph of Joseph & Hannah Dious born Oct. 2.
 Sarah of Charles & Mary Dumery born Oct. 20.
 Mary of William & Mary Downe born Nov. 21.
 John of John & Elizabeth Davis born Dec. 11.
 Hannah of William & Mary Davis born July 15.
 John of John & Catharine Eyre born Mar. 27.
 John of George & Ruth Edwards born Mar. 30.
 Mary of William & Sarah Eustis born May 4.
 Thomas of Joseph & Eliza. Eldridge born Mar. 7.
 Mary of Henry & Elizabeth Emes born Nov. 26.
 Mary of John & Frances Francis born Jan. 29.
 Hannah of John & Dorothy Foy born Feb. 4.
 Mary of Robert & Eliza. Fethergill born Jan. 18.
 Rebecca of Thomas & Mary Goodridge born Aug. 10.
 Elizabeth of Robert & Mary Gutteridge born Apr. 9.
 Samuel of John & Hannah Green born Apr. 14.
 Jacob of Robert & Sarah Gilbert born Apr. 30.
 Hannah of William & Thankful Griggs born May 30.
 Mary of Benja. & Hannah Gillam born June 9.
 Miles of Samuel & Mary Greenwood born Sept. 12.
 William of Phillip & Hannah Goss born Oct. 6.
 Elizabeth of John & Hannah Goodwin born Dec. 16.
 Aquilla of William & Hannah Gibson born Feb. 5.
 Joseph of Samuel & Hannah Green born Feb. 21.
 Samuel of Thomas & Abigail Hatherly born Apr. 16.
 Anna of James & Sarah Harris born Apr. 22.
 William of William & Ann Hollowell born May 1.
 Benjamin of Joshua & Hannah Hewes born June 9.
 Thomas of Margaret Halsey born Aug. 18.
 Elizabeth of Thomas & Mary Hitchborn born Sept. 19.
 Samuel of Samuel & Mary Holmes born Oct. 7.
 Margaret of Edward & Margaret Hunlock born May 7

Rebecca of James & Elizabeth Hughs born Oct. 14.
 Rebecca of James & Dinah Halsy born Nov. 26.
 Samuel of Nicholas & Mary Hale born Dec. 2.
 Jonathan of John & Joanna Hunlock born Dec. 12.
 Paul of William & Hannah Hoar born Dec. 23.
 Mercy of William & Hannah Harris born July 26.
 John of William & Elizabeth Ireland born Sept. 17.
 David of Roger & Elizabeth Judd born Jan. 17.
 Hannah of John & Hannah Jones born Jan. 17.
 John of Philip & Mary Langdon born Aug. 27.
 Deodat of Deodat & Jane Lawson born Sept. 1.
 Elizabeth of Henry & Rachel Mattock born May 16.
 Elizabeth of Robert & Eliza. Mason born June 4.
 Nathaniel of Joshua & Eliza. Matson born Sept. 14.
 Nathaniel of James & Eliza. Meeres born Oct. 7.
 Mary of Isaac & Phoebe Marion born Dec. 4.
 James of James & Eliza. Marshal born Dec. 2.
 Samuel of Arthur & Rebecca Mosier born Jan. 21.
 Martha of Francis & Martha Marshal born Feb. 6.
 Jonathan of William & Hannah Milbourn born Nov. 10.
 William of William & Hannah Negro born Nov. 14.
 Mary of Peter & Hannah Odlin born Nov. 6.
 John of Richard & Rebecca Ormes born Nov. 17.
 Joseph of Joseph & Lydia Pearce born June 23.
 Elizabeth of John & Eliza. Playsteed born July 15.
 James of Thomas & Hannah Pemberton born Sept. 3.
 Sarah of John & Ruth Pearce born Sept. 9.
 Thomas of Thomas & Amee Penant born Nov. 26.
 Elizabeth of Samuel & Elizabeth Parris born Nov. 28.
 Anna of James & Anne Pecker born Feb. 13.
 Abial of Edward & Abial Paige born Mar. 5.
 James of James & Susanna Pryer born Jan. 1.
 Samuel of Samuel & Dyonisia Ravenscroft born Apr. 12.
 Solomon of George & Sarah Ripley born Nov. 18.
 William of William & Ann Rawson born Dec. 2.
 Mercy of John & Mercy Rowstone born Feb. 15.
 Caleb of Caleb & Elizabeth Ray born Feb. 19.
 Benjamin of Æneas & Joanna Salter born May 8.
 Elizabeth of Samuel & Dorcas Stocker born May 9.
 Hannah of John & Hannah Somes born June 9.
 Jabez of Jabez & Elizabeth Salter born July 4.
 Samuel of Robert & Mary Saunders born Mar. 23.
 Peter of Ponett & Eugene Stelle born July 22.
 Faith of Thomas & Elizabeth Savage born Aug. 11.
 Richard of Ephraim & Sarah Savage born Sept. 15.
 Simeon of Simeon & Mary Stoddard born Oct. 20.
 Benjamin of Joseph & Ruth Shaw born Oct. 26.
 Elizabeth of Michael & Mary Shute born Dec. 19.
 Mary of John & Jane Sparrey born Dec. 27.
 Samuel of Samuel & Elizabeth Sendall born Jan. 20.
 Hopestill of Ephraim & Mary Sale born Feb. 14.
 Samuel of Savil & Sarah Simpson born Feb. 23.
 Sarah of Obadiah & Sarah Sale born Mar. 3.
 Sarah of William & Anne Sydenham born Mar. 10.
 Mary of William & Abigail Seeres born Mar. 23.
 Abigail of Edward & Frances Shore born Feb. 23.
 Abraham } of Samuel & Abigail Townsend born May 20.
 Isaac } of Samuel & Abigail Townsend born May 20.
 Mehetable of James & Sarah Twisdell born Nov. 25.
 Benjamin of Thomas & Mary Townsend born Jan. 10.
 Jane of Thomas & Mary Tawley born Mar. 2.
 Jane of Nicholas & Christian Tribah born Mar. 11.
 Israel of John & Eliza. Underwood born Jan. 13.
 John of Isaac & Mary Vergoose born July 26.

Elizabeth of John & Mary Viall born Nov. 12.
 Anna of Richard & Anna West born June 2.
 John of Obadiah & Susanna Wakefield born July 4.
 Samuel of Experience & Elizabeth Willis born Aug. 31.
 Martha of Richard & Martha Wharton born Oct. 25.
 Peter of Peter & Elizabeth Weare born Nov. 28.
 Elizabeth of Sampson & Rebecca Waters born Feb. 1.
 Anna of Henry & Esther Webster born Feb. 9.
 Priscilla of Cornelius & Priscilla White born Mar. 4.
 Thomas of Samuel & Mehetable Worden born Oct. 6.
 Elizabeth of Benja. & Palsg: Walker born Apr. 29.
 John of John & Eliza. Welch born July 22.
 David of Roger and Eliza. Yelings born Aug. 12.

FIRST CHURCH.

Benjamin of John Thwing	Oct. 8.
James of James Barnes	May.
Rachel of John Moore	Feb.
Mary of bro. Dering	May.
Martha of bro. Dering } twins	May.

1683.

TOWN.

Esther of John & Esther Agard born July 16.
 John of Henry & Judith Allen born Sept. 17.
 Daniel of Daniel & Mariana Aline born Dec. 6.
 Eliza. of John & Bridget Aires born Sept. 28.
 Mary of Benjamin & Mary Alford born Sept. 15.
 Samuel of Samuel & Elizabeth Bill born ———.
 Martha of John & Susanna Beales born Mar. 29.
 Persis of Samuel & Hannah Bridge born Mar. 30.
 Abigail of Joseph & Rebecca Brisco born Apr. 2.
 Hannah of William & Hannah Bryant born June 26.
 Dorothy of Samuel & Lois Bligh born July 17.
 Elizabeth of Grimstone & Elizabeth Bowde born Aug. 22.
 Elizabeth of John & Sarah Birge born Sept. 20.
 Nathaniel of Nathanll & Elizabeth Barnes born Sept. 24.
 James of John & Esther Barnard born Sept. 28.
 Abraham of Abraham & Martha Blish born Oct. 3.
 Abigail of Jeremiah & Sarah Bumstead born Nov. 4.
 John of James & Temperance Barnes born Nov. 21.
 Mary of Josiah & Mary Baker born Feb. 7.
 Thomas of Thomas & Mary Bidle born Feb. 9.
 John of John & Charity Baily born Jan. 5.
 Mary of James & Grace Butler born Feb. 21.
 Jonathan of John & Mary Bull born Feb. 24.
 Thomas of Thomas & Sarah Baker born Mar. 22.
 James of James & Sarah Burges born Dec. 22.
 Mary of David & Mary Basset born Feb. 20.
 Robert of Robert & Joanna Breck born Apr. 30.
 Mary of Samuel & Mary Checkley born Apr. 12.
 Mary of Thomas & Jane Clarke born May 12.
 Ann of Thomas & Ann Cooke born Aug. 27.
 Katharine of Matthew & Naomi Collins born Sept. 10.
 Rachel of Jonas & Mary Clay born Oct. 3.
 David of Sampson & Elizabeth Cole born Dec. 21.
 Mary of Gilbert & Joanna Cordey born Dec. 15.
 Lydia of Caleb & Sarah Chapin born Mar. 15.

Rebecca of Robert & Rebecca Cumbey born Dec. 8.
Mary of John & Elizabeth Dyer born June 3.
Martha of John & Rachel Drake born June 19.
Mary of Ebenezer & Dorcas Davenport born July 15.
Sarah of Benja. & Sarah Davis born Aug. 16.
John of Charles & Mary Demurry born Nov. 26.
Abigail of William & Elizabeth Day born Dec. 29.
Samuel of Henry & Abigail Dawson born Aug. 17.
Hannah of Giles & Hannah Dyer born Aug. 8.
Ebenezer of Samuel & Mary Emons born Apr. 18.
Sarah of Andrew & Sarah Elliott born June 9.
John of Henry & Joanna Ellis born Aug. 18.
Catharine of John & Catharine Eyre born Dec. 10.
John of Asaph & Hannah Elliott born Dec. 18.
Ruth of John & Mary Fairfield born Sept. 1.
Sarah of Thomas & Elizabeth Fox born Nov. 15.
James of John & Eliza. Fayerweather born Dec. 8.
Charles of John & Mary Frost born Dec. 26.
Mary of Giles & Elizabeth Fyfield born Mar. 1.
Mary of John & Joane Gee born Apr. 11.
Priscilla of John & Susanna Gardner born Apr. 15.
Sarah of John & Hannah Greenleafe born Sept. 3.
Mary of Lot & Elizabeth Gourding born Sept. 30.
William of William & Hannah Gibson born Dec. 16.
Jane of Peter & Sarah Goulding born Jan. 1.
Benjamin of John & Martha Goodwin born Jan. 17.
Sarah of Joseph & Sarah Greenleafe born Feb. 3.
Sarah of Roger & Sarah Gilbert born Feb. 22.
Samuel of John & Hannah Goffe born June 19.
Charles of George & Mary Hooper born Apr. 30.
John of Joseph & Sarah Hurd born May 7.
Elizabeth of Richard & Elizabeth Harris born June 19.
James of James & Lydia Hawkins born Aug. 8.
Asa of Joseph & Anna Hasey born Aug. 14.
John of John & Christian Herridge born Aug. 31.
Silence of John & Experience Hayward born Dec. 9.
Samuel of Samuel & Elizabeth Hooper born Dec. 19.
Robert of Robert & Elizabeth Howard born Dec. 22.
Jacob of James & Elizabeth Hewes born Feb. 23.
Martha of Edward & Margaret Hunlock born Feb. 7.
Moses of Henry & Lydia Ingram born July 9.
John of John & Mary Ireland born July 27.
Elizabeth of Aaron & Mary Jeffers born May 13.
Sarah of Joseph & Elizabeth Jackson born Aug. 26.
William of Thomas & Elizabeth Johnson born Sept. 4.
Mary of Samuel & Mary Jenkins born Sept. 21.
John of George & Mary Jones born July 28.
Abigail of Humphrey & Susanna Luscombe born June 12.
Joseph of James & Grizzell Lloyd born Aug. 11.
Isaac of Isaac & Mary Lewis born Aug. 31.
John of Samuel & Deliverance Legg born Jan. 16.
Hannah of Robert & Hannah Mare born Sept. 16.
Nathaniel of James & Elizabeth Meers born Sept. 26.
George of George & Lucey Monk born Nov. 7.
Ephraim of Samuel & Ruth Marshal born Jan. 3.
Joseph of Jacob & Rebecca Mason born Feb. 9.
Samuel of John & Sarah Melleson born July 16.
Margaret of John & Eliza. Needham born Nov. 8.
Sarah of William & Sarah Payne born Mar. 25.
Edmund of Richard & Martha Patteshal born Mar. 31.
Jane of John & Sarah Place born Apr. 18.
Dominicus of Moses & Catharine Patrick born July 7.
Edmund of Edmund & Susanna Perkins born Sept. 6.
Ruth of John & Mary Pell born Sept. 27.

Mary of Samuel & Mary Pearce born Dec. 1.
 Obadiah of Obadiah & Elizabeth Read born Mar. 27.
 Paulus Emilius of John & Eunice Robinson born Jan. 7.
 Jonathan of Solomon & Priscilla Rainsford born Dec. 11.
 David of William & Ann Rawson born Dec. 13.
 Charity of John & Charity Ricks born Jan. 29.
 George of Samuel & Dyonisia Ravenscroft born Mar. 20.
 Samuel of John & Mary Roberts born Dec. 25.
 Sarah of Samuel & Elizabeth Stocker born Dec. 8.
 Gideon of Joseph & Rebecca Smith born Apr. 1.
 Jabez of Jabez & Elizabeth Salter born June 1.
 Roger of Roger & Elizabeth Stayner born July 23.
 William of William & Mary Slack born July 25.
 Mary of Samuel & Mary Smith born July 29.
 Sampson of Sampson & Mehetable Sheafe born Aug. 14.
 Mary of Ebenezer & Martha Savage born Aug. 15.
 Sarah of Edward & Esther Stevens born Aug. 20.
 Rowland of Rowland & Anne Storey born Sept. 3.
 Faith of Thomas & Elizabeth Savage born Oct. 3.
 Mercy of John & Hannah Somes born Oct. 22.
 Rebecca of Thomas & Rebecca Smith born Oct. 27.
 Hezekiah of William & Hannah Sumner born Feb. 21.
 Ann of John & Anne Soley born Mar. 8.
 Sarah of Edward & Esther Stevens born Aug. 20.
 Anna of John & Rachel Todd born Apr. 14.
 Catharine of Timothy & Mary Thornton born Apr. 16.
 Martha of George & Rebecca Thomas born Sept. 22.
 Margaret of Josiah & Sarah Torrey born Apr. 19.
 Zachariah of Nathanl & Deborah Thayer born May 29.
 Joanna of David & Joanna Thomas born Sept. 15.
 Elias of Elias & Mary Tatenham born Dec. 2.
 John of Edward & Abigail Tuttle born Nov. 24.
 Mary of John & Mercy Veren born May 20.
 Silvanus of George & Lucey Vickars born June 13.
 Elizabeth of James & Eliza. Whetcombe born Apr. 2.
 Elizabeth of Wait & Mary Winthrop born May 11.
 Mary of John & Eliza. Woodmansey born July 21.
 Jeremiah of Joseph & Lydia Williams born Aug. 22.
 Mary of Peter & Hannah Warren born Nov. 21.
 Abigail of Thomas & Susanna Walker born Dec. 22.
 Anna of John & Sarah Ware born Jan. 5.
 Joseph of Experience & Elizabeth Willis born Feb. 2.
 James of John & Hannah Williams born Mar. 25.
 Edward of Edward & Sarah Wadkins born Jan. 10.
 Samuel of Samuel & Sarah Walker born Apr. 25.

FIRST CHURCH.

Clarke of Elisha Hutchinson	July 8.
Mercy of John Clough	
James of John Fayreweather	Dec. 8.
Persis of Samuel Bridge	1 day 2 mo.
John of James Barnes	Nov.

1684.

TOWN.

Elizabeth of John & Grace Alliset born June 19.
 Ann of Tobias & Anne Atkins born July 2.
 Dorcas of Jonathan & Rebecca Adams born July 7.

Ann of Thomas & Mary Ashley born Sept. 17.
Samuel of John & Sarah Aulgar born Sept. 28.
Sarah of John & Constance Alcock born Jan. 28.
Mary of Thomas & Mary Buck born Sept. 2.
Mary of John & Sarah Blake born May 11.
Bethiah of James & Mehetable Bill born May 6.
Thomas of Thomas & Mary Burroughs born June 4.
William of William & Hannah Billings born July 3.
Robert of Robert & Rebecca Bronsdon born July 28.
Abraham of Daniel & Sarah Ballard born Aug. 27.
Sarah of Daniel & Sarah Ballard born Aug. 27.
John of Edward & Mary Bicknell born Sept. 11.
John of Samuel & Anne Beighton born Sept. 19.
Thomas of Thomas & Elizabeth Barnard born Oct. 10.
Thomas of Edward & Mary Burtles born Jan. 27.
Susanna of George & Mercy Bearstow born Nov. 2.
Elizabeth of William & Secunda Browne born Nov. 17.
Mary of Joseph & Deborah Belknap born Nov. 24.
Jacob of Thomas & Mary Baker born Jan. 5.
John of Joseph & Rebecca Brisco born Jan. 30.
Benjamin of Samuel & Hannah Bridge born Feb. 18.
Abigail of Jeremiah & Sarah Bumstead born Feb. 12.
John of John & Martha Clough born Apr. 16.
Samuel of John & Mary Cole born Sept. 16.
Bartholomew of Richard & Abigail Cheever born Dec. 2.
Elizabeth of Thomas & Jane Clarke born Dec. 22.
Rebecca of Samuel & Mary Checkley born Sept. 2.
Hannah of William & Hannah Coleman born Jan. 19.
Richard of Robert & Anne Cole born Jan. 21.
Jonathan of John & Mary Center born Feb. 8.
Jennet of Mungo & Mary Crafford born Nov. 2.
Elizabeth of Charles & Mary Coole born Aug. 23.
Thomas of Sampson & Sarah Dewer born Apr. 13.
Henry of Henry & Elizabeth Dering born Oct. 6.
Elizabeth of Edmund & Sarah Dolbeer born Oct. 28.
Elizabeth of William & Mary Downe born Jan. 9.
Elizabeth of John & Elizabeth Davis born Sept. 25.
Joanna of William & Susanna Dennis born Sept. 16.
Free Love of William & Mary Davis born July 3.
Mary of Francis & Sarah Ellis born May 6.
David of David & Mary Edwards born Aug. 29.
Ruhama of Thomas & Ruhama Eldridge born Dec. 16.
George of George & Ruth Edwards born Oct. 15.
Abigail of William & Abigaile Everden born Jan. 11.
John of John & Lydia Foster born July 27.
Hannah of Abraham & Mary Francis born Dec. 19.
Mary of John & Mary Frost born Jan. 22.
Sarah of John & Sarah Fosdike born Feb. 19.
Robert of Robert & Elizabeth Fethergill born Aug. 19.
John of John & Anne Figg born Nov. 5.
William of William & Eliza. Greenough born July 8.
William of William & Thankful Griggs born July 26.
Elizabeth of Robert & Mary Gutteridge born Aug. 7.
Rachel of Isaac & Sarah Griggs born Dec. 15.
Nicholas of Nicholas & Mary George born Feb. 7.
Abigail of Benjamin & Abigail Gillam born Feb. 22.
Hannah of Ezekiel & Ruth Gardner born Mar. 13.
Nathaniel of Joseph & Mary Grafton born Nov. 5.
Richard of Richard & Abigail Gridley born Aug. 16.
John of Nicholas & Mary George born Feb. 6.
Sarah of Humphrey & Sarah Horrell born June 1.
Lydia of Edward & Lydia Hilliard born June 5.
Thomas of Thomas & Rebecca Harris born July 16.
Jacob of William & Judith Hasey born Aug. 26.

Richard of John & Anne Hubbard born Aug. 27.
 Hezekiah of William & Hannah Harris born Apr. 8.
 Mary of Jacob & Martha Howen born Aug. 21.
 Richard of Richard & Elizabeth Harris born Oct. 2.
 Ephraim of James & Sarah Harris born Dec. 17.
 Edward of William & Prudence Harrison born Feb. 9.
 William of William & Hannah Hoare born Mar. 1.
 Elizabeth of John & Joanna Hunlocke born Mar. 12.
 John of John & Patience Harker born July 21.
 Nathaniel of Samuel & Mary Ings born July 27.
 Sarah of John & Sarah Jenkins born Mar. 25.
 Abigail of Samuel & Mercy Jackline born Mar. 25.
 Abigail of John & Rebecca Jarvis born Sept. 2.
 Mary of John & Jane Jacob born Oct. 7.
 Matthew of Matthew & Susanna Jones born Jan. 19.
 John of Thomas & Eliza. Johnson born Jan. 16.
 Abigail of John & Abigail Keech born June 5.
 William of William & Deborah King born Oct. 1.
 Peter of Peter & Mary King born Jan. 8.
 Elizabeth of John & Emin Kelly born Nov. 27.
 John of Joshua & Sarah Lane born Mar. 26.
 James of James & Susanna Lindall born May 28.
 Elizabeth of Samuel & Deliverance Legg born Oct. 29.
 Peter of Charles & Mary Lidget born Jan. 2.
 Thomas of William & Mary Lackey born Sept. 9.
 Alice of William & Eliza. Middleton born July 4.
 Abigail of William & Mary Morto born June 25.
 Susanna of John & Susanna Mulberry born Apr. 3.
 Paul of Paul & Elizabeth Miller born May 30.
 Elizabeth } of Nathanll. & Deborah Man born July 18.
 Sarah } of Nathanll. & Deborah Man born July 18.
 Abraham of Henry & Rachel Maddocks born Aug. 9.
 John of John & Anna Marion born Aug. 17.
 Robert of Robert & Sarah Mason born Jan. 14.
 John of Archibald & Elizabeth Morris born Feb. 9.
 James of James & Dorcas Maxwell born Feb. 15.
 Benjamin of Benja. & Rebecca Marshal born Oct. 20.
 Mary of William & Hannah Milbourn born Nov.
 Samuel of John & Hannah Orris born Nov. 2.
 Sarah of William & Elizabeth Parkman born Apr. 5.
 Joseph of Joseph & Bridget Phillips born May 17.
 Sarah of John & Sarah Pomrey born June 21.
 Mary of James & Tomasin Penniman born Aug. 18.
 Richard of William & Constance Palfrey born Aug. 18.
 Elizabeth of Joseph & Lydia Pearse born Aug. 22.
 Sarah of John & Elizabeth Plaisted born Oct. 22.
 Judith of George & Elizabeth Pordage born Feb. 26.
 Hannah of John & Hannah Pitcher born Mar. 5.
 Moses of Moses & Mary Peirce born Apr. 17.
 Thomas of Thomas & Hannah Pemberton born Mar. 17.
 Ann of James & Susanna Pryer born Jan. 13.
 Mary of Obadiah & Elizabeth Reed born May 4.
 John of John & Experience Roberts born June 13.
 Matthew of Richard & Sarah Rycroft born July 7.
 John of George & Elizabeth Robinson born June 19.
 Sarah of Philip & Margaret Squire born Mar. 27.
 Prudence of Robert & Anne Shelstone born May 3.
 Hull of Samuel & Hannah Sewall born July 8.
 Sarah of Obadiah & Sarah Sale born Aug. 27.
 William of Fearnott & Bethiah Shaw born Nov. 4.
 Mary of Thomas & Mary Simcock born July 16.
 Mary of Simeon & Mary Stoddard born Sept. 19.
 Joseph of Robert & Elizabeth Sanderson born Oct. 10.
 Hephzibah of Ephraim & Mary Sale born Dec. 24.

Matthew of Sampson & Mehetable Sheafe born Jan. 1.
 Elizabeth of Ephraim & Sarah Savage born Jan. 8.
 Elizabeth of Savil & Sarah Simpson born Mar. 5.
 Elizabeth of Edward & Mary Sumers born June 8.
 Mary of Constan: & Elizabeth Sams born Dec. 2.
 Sarah of Richard & Sarah Talley born Apr. 16.
 Ebenezer of William & Leah Tower born May 2.
 Elizabeth of James & Elizabeth Townsend born July 18.
 Elizabeth of John & Martha Temple born July 28.
 Cornelius of Nathaniel & Deborah Thayer born Nov. 14.
 Jeremiah of Jeremiah & Mercy Tay Jan. 19.
 George of George & Rebecca Thomas born Mar. 16.
 Prudence of Isaac & Mary Vergoose born Apr. 21.
 Roger & } of Richard & Anne West born May 22.
 Anna } of Richard & Anne West born May 22.
 Lydia of John & Eunice Wayt born June 5.
 Ann of John & Eliza Woodmansey born July 20.
 Sarah of John & Elizabeth Walley born Aug. 25.
 Ebenézer of Samuel & Elizabeth Wakefield born Sept. 12.
 John of Richard & Martha Wharton born Sept. 29.
 Deliverance of Michael & Elizabeth Willis born Nov. 1.
 Nathan of Cornelius & Priscilla White born Nov. 5.
 Peter of Peter & Mehetable Welcome born Nov. 8.
 Robert of Peter & Abigail Warren born Dec. 27.
 Hannah of Peter & Abigail Wyar born Jan. 3.
 William of Waitstil & Mary Winthrop born Jan. 4.
 Benjamin of Thomas & Susanna Walker born Mar. 13.
 Joshua of Joshua & Sarah Winsor born Mar. 16.
 Samuel of Samuel & Mehetable Worden born Feb. 10.
 John of John & Sarah Wheatly born May 18.
 William of Samuel & Sarah Walker born Dec. 8.
 John of Benja. & Palsg: Walker born Mar. 18.
 Cornelius of Cornelius & Faith Waldo born Nov. 17.

FIRST CHURCH.

William of Wm. Griggs	July.
Elizabeth of John Temple	July.
Benjamin of Samuel Bridge	Feb. 22.
Francis of John Moore	Nov.
Henry of brother Dering	Oct.
Ann of sister Dorrell born Apr 25	Apr. 29.
Thomas Fisher born Sept. 28	Oct. 5.
John of John Marion	Aug. 31.

1685.

TOWN.

Mary of Bozoun & Lydia Allen born July 13.
 James of James & Elizabeth Adlington born Dec. 14.
 Katharine of Daniel & Mariana Alline born Feb. 18.
 John of Benja. & Mary Alford born July 5.
 John of Roger & Sarah Burges born Apr. 5.
 Joseph of John & Mary Briggs born Apr. 7.
 Benjamin of John & Mary Briggs born Apr. 7.
 Abigail of Samuel & Hannah Bicknel born Apr. 14.
 Joseph of Grimstone & Elizabeth Bowde born Apr. 27.
 Philip of Philip & Sarah Bass born May 2.
 Sarah of John & Sarah Barnard born May 3.
 Grace of James & Grace Butler born May 2.
 Ellener of Thomas & Esther Bulkley born Sept. 16.

Elisha of Edmund & Elizabeth Browne born Sept. 16.
Mehetabel of Thomas and Esther Brental born Nov. 14.
Joseph of Joseph & Deborah Belknap born Nov. 18.
John of John & Mary Bonner born Jan. 10.
Elizabeth of Nathanll. & Elizabeth Barnes born Jan. 22.
Joseph of James & Temperance Barnes born Feb. 7.
Richard of Samuel & Elizabeth Bill born Mar. 25.
Abigail of Thomas & Mary Beard born Sept. 18.
John of William & Joanna Bolderson born Dec. 28.
Sarah of John & Sarah Blake born Feb. 2.
Mary of Thomas & Mary Bossinger born Feb. 2.
Mary of Charles & Mary Blinco born Mar. 7.
Samuel of Samuel & Mary Checkley born Sept. 23.
John of John & Susanna Cross born Sept. 28.
William of William & Elizabeth Colman born Nov. 3.
Mary of John & Elléner Comer born Dec. 15.
Sarah of John & Sarah Clarke born July 9.
James of John & Sarah Coney born Oct. 12.
Matthew of Matthew & Naomi Collins born May 1.
Job of Job & Joanna Chamberlain born May 16.
Abigail of John & Hannah Clap born Nov. 21.
William of David & Mary Couch born Jan. 25.
Richard of Robert & Anne Cole born Jan. 21.
Elizabeth of James & Elizabeth Correll born Feb. 9.
Sarah of William & Martha Davis born Apr. 22.
Elizabeth of Benja. & Sarah Davis born May 23.
John of John & Rachel Drake born June 12.
Sarah of John & Sarah Davis born July 1.
Abigail of Henry & Abigaile Dawson born Aug. 27.
John of John & Palti Dorrell born Aug. 28.
Samuel of John & Elizabeth Dyer born Oct. 13.
Giles of Giles & Hannah Dyer born Dec. 5.
Sampson of Sampson & Sarah Dewer born Mar. 13.
Ebenezer of Richard & Mary Ellis born June 19.
William of William & Abigail Everden born Dec. 17.
Joseph of Joseph & Elizabeth Eldridge born Dec. 23.
Elizabeth of John & Elizabeth Eustis born Jan. 30.
Sarah of Stephen & Mary Feilder born May 30.
Joseph of John & Dorothy Foy born Aug. 21.
Josiah of Josiah & Ann Franklin born Aug. 23.
John of John & Sarah Fosdike born Mar. 6.
Huldah of Thomas & Elizabeth Gross born Sept. 13.
John of Isaac & Sarah Griffin born Sept. 2.
Jane of Samuel & Hannah Greene born June 12.
Peter of Samuel & Mary Greenwood born July 7.
Elizabeth of Lot & Elizabeth Gourding born Aug. 10.
Thomas of Thomas & Mary Goodridge born Dec. 16.
Elizabeth of Samuel & Susanna Gray born Dec. 21.
Joseph of John & Hannah Goffe born Mar. 8.
Grace of John & Joane Gee born Sept. 4.
Abraham of Abraham & Elizabeth Gourding born Jan. 3.
Mary of George & Mary Hooper born May 2.
Martha of Edward & Lydia Hilliard born May 23.
Martha of John & Elizabeth Howen born June 23.
William of William & Mary Hough born July 18.
Hannah of Samuel & Rachel Holman born Aug. 5.
Joseph of Joseph & Susanna Hiller born Sept. 9.
Hannah of Isaac & Hannah Hallow born Jan. 25.
Hannah of Elizur & Mary Holyoke born Feb. 12.
Mary of Edward & Margaret Hunlock born Feb. 15.
Ann of William & Sarah Hunt born Feb. 23.
Charles of John & Mary Hewes born Feb. 26.
Thomas of Thomas & Mary Hunt born Mar. 15.
Elizabeth of William & Elizabeth Hewes born Apr. 26.

Susanna of Thomas & Meldred Inglesby born Aug. 27.
George of Nathanll. & Ellener Jewell born Apr. 28.
William of Samuel & Mercy Jacklin born Apr. 29.
Thomas of John & Sarah Jenkins born Jan 12.
Elizabeth of Joseph & Elizabeth Jackson born Jan. 27.
William of Roger & Anne Kilkup born June 4.
John of John & Emmin Kelly born Nov. 23.
John of Elizabeth Lane born May 8.
Theophilus of Samuel & Mehetable Lillip born June 10.
James of Philip & Mary Langdon born Aug. 15.
David of David & Martha Langdon born Sept. 20.
Joseph of Isaac & Mary Lewis born Nov. 16.
Henry of James & Grizzell Lloyd born Nov. 28.
Sarah of Joshua & Sarah Lane born Feb. 6.
John of John & Anna Marion born May 30.
Hannah of Samuel & Hannah Marion born June 23.
Zachariah of John & Sarah Melleson born June 18.
Andrew of Francis & Martha Marshal born July 26.
Margaret of Andrew & Ruth Mariner born Sept. 7.
Mary of Benja. & Rebecca Marshal born Nov. 17.
Ann of John & Phoebe Marshal born Dec. 28.
Bethiah of Joshua & Elizabeth Matson born Jan. 18.
John of Paul & Elizabeth Miller born Feb. 17.
Zachariah of John & Elizabeth Needham born Oct. 1.
Samuel of Peter & Hannah Odlin born May 6.
Richard of Richard & Rebecca Ormes born Aug. 17.
Robert of Richard & Martha Patteshal born Mar. 26.
Ann of Samuel & Sarah Phillips born May 20.
Dorothy of John & Rachel Pasco born July 19.
Jonathan of Edward & Abial Paige born July 20.
Mary of Hugh & Mary Price born July 25.
Amy of Thomas & Amy Penant born Oct. 5.
John of John & Elizabeth Peck born Oct. 6.
Benjamin of Joseph & Bridget Phillips born Oct. 18.
Cotton of Thomas & Dorothy Palmer born Nov. 11.
William of William & Elizabeth Parkman born Dec. 19.
Abigail of John & Elizabeth Palmer born Feb. 6.
Jane of Thomas & Hannah Pemberton born Mar. 18.
William of Joseph & Bethiah Parson born Dec. 29.
Anna of Daniel & Anna Quinsey born June 1.
Ann of Abraham & Sarah Quiddington born Jan. 30.
Jeremiah of Thomas & Martha Raper born Apr. 27.
Mary of Stephen & Judith Robino born July 29.
John of John & Charity Rickes born Aug. 30.
Jeremiah of Samuel & Sarah Ruggles born Nov. 14.
Margaret of Samuel & Hannah Ruck born Jan. 3.
Sarah of John & Experience Roberts born Jan. 28.
Gershom of John & Judah Rawlins born Jan. 29.
Joseph of Rowland & Anne Storey born Mar. 31.
Anthony of Anthony & Susanna Stokes born June 18.
Mary of Robert & Mary Saunders born July 12.
Benoni of Charles & Elizabeth Salter born July 17.
Abigail of Robert & Abigail Seers born July 24.
Elizabeth of John & Hannah Somes born Aug. 31.
Elisha of Jabez & Elizabeth Salter born Sept. 22.
Arthur of Arthur & Sarah Smith born May 23.
David of Simeon & Mary Stoddard born Dec. 5.
Henry of Samuel & Hannah Sewall born Dec. 8.
Mary of Stephen & Esther Swasy born Dec. 19.
Sarah of William & Hannah Sumner born Dec. 29.
Sheffield of Joseph & Anne Stocker born Jan. 12.
Nathaniel of Joseph & Rebecca Smith born Feb. 1.
Elizabeth of Thomas & Elizabeth Smith born Feb. 14.
Thomas of Thomas & Rebecca Smith born Feb. 17.

Elizabeth of Ralph & Susanna Straker born Aug. 31.
 Joseph of Joseph & Hannah Souther born Feb. 27.
 Hezekiah of Thomas & Mary Townsend born Apr. 13.
 John of Thomas & Mary Talley born June 21.
 Thomas of Thomas & Miriam Tyler born Aug. 15.
 Rebecca of Penn & Sarah Townsend born Aug. 15.
 Nathaniel of William & Leah Tower born Oct. 11.
 Richard of Richard & Sarah Talley born Dec. 21.
 Sarah of John & Maria Thwing born Feb. 22.
 Sarah of John & Martha Tuttle born Jan. 8.
 Mary of Francis & Mary Whitman born Apr. 10.
 Elizabeth of Michael & Judith Wrong born May 9.
 Sampson of Sampson & Rebecca Waters born June 20
 Sarah of John & Sarah Ware born July 12.
 Cyrus of William & Abigail Wright born Aug. 4.
 Sarah of Ephraim & Elizabeth Warren born Aug. 10.
 John of Experience & Elizabeth Willis born Sept. 4.
 John of Gabriel & Mary Warner born Nov. 22.
 Samuel of Edward & Sarah Wadkins born Dec. 13.
 Sarah of Griffin & Sarah Williams born Jan. 2.
 Robert of Robert & Margery Williams born Jan. 13.
 Thomas of Thomas & Sarah Wheatly born Jan. 8.
 Abraham of Gregory & Sarah Wakeman born Nov. 8.

FIRST CHURCH.

Samuel of Elisha Hutchinson	Oct. 25.
John of John Fayreweather	Dec. 3.
Sarah of John Thwing	Feb. 28.
Joseph of James Barnes	Feb.
James Howard aged 5 years	May.
Abigail Howard aged 2 years	May.
Elizabeth Howard aged 1 month	May.
Catharine of John Moore	March.
John of sister Dorrell born Aug. 28	Aug. 29.
John Squire	May 3.
Margaret Squire	Aug. 16.
Jeremiah Ruggles	Nov. 14.
John of John Marion	July 5.

1686.

TOWN.

Hannah of Matthew & Martha Aulgar born May 22.
 Anne of John & Elizabeth Allen born May 28.
 Grace of John & Grace Alliset born May 24.
 Hannah of John & Sarah Alguer born July 4.
 Benjamin of Benja. & Mary Alford born Oct. 5.
 Elizabeth of David & Hannah Adams born Oct. 8.
 William of Thomas & Mary Ansell born Dec. 24.
 James of Jonatha. & Rebecca Adams born Jan. 7.
 Jane of John & Avis Adams born Feb. 21.
 Rebecca of Joshua & Rebecca Atwater born Feb. 25.
 Rebecca of John & Mary Arnold born Feb. 26.
 Ann of Bozoun & Lydia Allen born Mar. 11.
 John of Robert & Joanna Bell born Mar. 27.
 Joseph of John & Susanna Butler born May 28.
 Elizabeth of Phillip & Margaret Barger born June 10.
 Samuel of Thomas & Sarah Banister born July 11.
 Edward of Edward & Mary Bromfield born May. 7.
 Joseph of Thomas & Mary Barber born July 3.

Samuel of Thomas & Rebecca Bayley born July 19.
Benjamin of William & Hannah Bryant born July 16.
Hannah of Ambrose & Hannah Berry born July 30.
Martha of Charles & Elizabeth Benmore born Aug. 4.
Sarah of Joseph & Rebecca Brisco born Aug. 1.
Sarah of John & Sarah Benjamin born May 8.
Benjamin of John & Anne Balston born May 3.
Elizabeth of Peter & Elizabeth Bonyot born June 19.
Thomas of Edward & Esther Bennet born Aug. 19.
Sarah of John & Mary Boyes born Aug. 22.
Sarah of Thomas & Elizabeth Barnard born Aug. 23.
Benjamin of Robert & Rebecca Bronsdon born Aug. 30.
John of James & Margaret Barton born Sept. 5.
Mary of Peter & Elizabeth Butler born Sept. 26.
Andrew of John & Sarah Borland born Sept. 26.
Thomas of Thomas & Mary Bill born Oct. 4.
Ann of Samuel & Anne Burnell born Oct. 7.
Samuel of Samuel & Martha Burrell born Oct. 30.
Robert of Thomas & Joanna Barnes born Dec. 3.
John of John & Mary Barber born Dec. 10.
Elizabeth of James & Grace Butler born Dec. 23.
Susanna of William & Elizabeth Burt born Dec. 31.
Thomas of Thomas & Esther Bulkley born Nov. 1.
Susanna of John & Jane Boderitt born Nov. 27.
Jeremiah of Joseph & Deborah Belknap born Jan. 1.
Mary of Henry & Rebecca Bushell born Jan. 16.
Daniel of John & Esther Barnard born Jan. 24.
Thomas of Jeremiah & Sarah Bumstead born Feb. 1.
Charity of John & Charity Bayly born Feb. 4.
John of Abrah. & Martha Blish born Feb. 6.
Edward of Edward & Mary Bertles born Feb. 13.
Mary of John & Sarah Balston born Feb. 16.
Sarah of Thomas & Sarah Baker born Feb. 25.
Mercy of John & Mercy Bowker born Feb. 26.
John of Thomas & Mary Beetle born Feb. 28.
Elizabeth of Nathaniel & Mary Baker born Mar. 9.
Thomas of Robert & Elizabeth Butcher born Mar. 11.
Samuel of Samuel & Anne Beighton born Apr. 6.
Mary of Gilbert & Joanna Cordey born Mar. 27.
Caleb of Caleb & Sarah Chapin born Apr. 2.
Thomas of John & Mary Cole born Apr. 23.
Martha of John & Martha Clough born June 10.
John of Thomas & Anne Cooke born June 12.
Sarah of Andrew & Sarah Cunningham born Sept. 5.
Rebecca of Jonathan & Rebecca Charles born Sept. 5.
Jonathan of Sampson & Elizabeth Cole born Sept. 2.
William of William & Susanna Critchfield born Oct. 13.
Hannah of Joshua & Elizabeth Cobbett born Oct. 18.
John of William & Lydia Clough born Oct. 27.
Dean of John & Mary Chantrel born Nov. 1.
Elizabeth of George & Elizabeth Clarke born Nov. 12.
Mary of Richard & Abigaile Cheever born Dec. 24.
Deborah of John & Martha Cornish born Dec. 24.
William of Job & Joanna Chamberlain born Jan. 16.
John of Mungo & Mary Crafford born Feb. 18.
Abigail of John & Mary Clough born Mar. 15.
Sarah of Robert & Rebecca Cumbey born Apr. 16.
Thomas of Charles & Mary Damaree born May 13.
William of Humphrey & Sarah Davie born June 27.
Thomas of John & Elizabeth Davis born July 24.
William of William & Susanna Dennis born Dec. 2.
Sarah of William & Sarah Dinsdal born Dec. 15.
William of Benja. & Sarah Davis born Jan. 22.
Zachariah of Zachariah & Sarah Davis born Feb. 16.

Joseph of John & Elizabeth Dyer born Mar. 2.
 Mary of Thomas & Hannah Eliot born July 25.
 Rebecca of Samuel & Mercy East born Aug. 16.
 Martha of Henry & Joanna Ellis born Sept. 3.
 Richard of Richard & Mary Ellis born Sept. 9.
 William of Samuel & Mary Eings born Apr. 9.
 William of William & Elizabeth Endecot born Sept. 25.
 John of John & Katharine Eades born Nov. 6.
 Esther of Edward & Sarah Everett born Jan. 24.
 Jonathan of Jonathan & Martha Farnum born May 6.
 Mary of John & Mary Fairfield born Apr. 3.
 Gabriel of Gabriel & Catharine Fishlock born July 15.
 Thomas of Thomas & Elizabeth Fathom born June 24.
 Hannah of Hugh & Ellener Floyd born Nov. 5.
 Ann of Josiah & Anne Franklin born Jan. 5.
 Sarah of James & Mary Ferryes born Jan. 18.
 Sarah of John & Lydia Foster born Jan. 29.
 Joseph of John & Anne Figg born Mar. 6.
 Bartholomew of Bastian & Elizabeth Gazeau born Apr. 23.
 Elizabeth of William & Elizabeth Greenough born June 8.
 Susanna of Robert & Mary Gutteridge born Aug. 19.
 Enoch of Joseph & Sarah Greenleafe born Sept. 2.
 Sarah of Isaac & Sarah Griggs born Aug. 9.
 Samuel of William & Thankful Griggs born Sept. 26.
 Mercy of Peter & Sarah Golding born Sept. 8.
 Elizabeth of Obadiah & Elizabeth Gill born Sept. 28.
 Zachariah of Benja. & Elizabeth Gillam born Oct. 11.
 Joseph of Richard & Abigail Gridley born Nov. 6.
 Solomon of John & Hannah Green born Nov. 14.
 Thomas of Thomas & Elizabeth Gross born Dec. 6.
 Nathaniel of Joseph & Hannah Gallop born Jan. 14.
 Ann of William & Hannah Gibson born Feb. 5.
 Mary of Nicholas & Mary George born Feb. 5.
 Isaac of Isaac & Mary Girrard born Mar. 24.
 Samuel of John & Martha Goodwin born Jan.—
 Mary of Francis & Johanna Holland born Apr. 15.
 William of John & Experience Hayward born May 25.
 Susanna of John & Susanna Hills born June 13.
 Sarah of James & Elizabeth Hues born July 16.
 Ruth of Samuel & Esther Huxford born July 22.
 John of Abraham & Elizabeth Harrison born July 26.
 John of Thomas & Annis Hill born Aug. 5.
 John of William & Hannah Harris born Aug. 9.
 Thomas of Thomas & Rebecca Harris born Aug. 10.
 Mary of James & Sarah Harris born Oct. 11.
 Ann of William & Patience Hodon born Oct. 27.
 John of John & Mary Holbrooke born Nov. 4.
 Susanna of Joseph & Susanna Hiller born Nov. 5.
 Anne of John & Anne Hubbard born Dec. 5.
 Elizabeth of Thomas & Judith Hunt born Dec. 21.
 Sarah of Joshua & Hannah Hewes born Dec. 23.
 William of John & Deborah Hurd born Jan. 17.
 Samuel of John & Hannah Haughton born Jan. 31.
 William of William & Mary Hough born Feb. 2.
 Hannah of Elizur & Mary Holyoke born Feb. 15.
 William of William & Mary Hopper born Feb. 18.
 Abigail of Ambrose & Hannah Honywell born Feb. 27.
 Hannah of William & Hannah Hoare born Mar. 5.
 Zachariah of Ephraim & Sarah Hall born Mar. 6.
 John of John & Elizabeth Indicot born Apr. 2.
 Elizabeth of Henry & Lydia Ingram born July 17.
 Abigail of Thomas & Meldred Inglesby born Feb. 10.
 Samuel of Samuel & Mary Jenkins born Apr. 4.
 Mary of William & Mary Jarvis born July 5.

Mary of William & Sarah Joyce born Sept. 15.
Thomas of Matthew & Susanna Jones born Oct. 8.
Ebenezer of Roger & Elizabeth Judd born Oct. 21.
Hannah of John & Hannah Jones born Nov. 3.
Ann of Thomas & Dorothy Jennings born Jan. 13.
William of William & Jane Keen born May 2.
Susanna of John & Mary King born Sept. 3.
Elizabeth of John Kilby born Sept. 15.
John of William & Deborah King born Sept. 22.
John of John & Emm Kally born Sept. 15.
George of George & Martha Lawson born Apr. 10.
Elizabeth of Charles & Mary Lidget born June 8.
Mercy of Thomas & Mary Lincoln born June 6.
Elizabeth of John & Elizabeth Langdon born ———.
Elhanan of Elhanan & Mary Lyon born July 27.
William of William & Mary Lackey born July 29.
Samuel of Samuel & Mehetable Lillie born Nov. 12.
Samuel of David & Martha Langdon born Nov. 13.
Samuel of James & Dorcas Maxwell born May 12.
Joseph of John & Anne Marion born June 10.
Jane of Samuel & Elizabeth Mansell born June 19.
Ruth of Samuel & Ruth Marshal born July 2.
Jane of Edward & Jane Mortimore born July 12.
Sarah of Stephen & Sarah Mason born July 27.
Susanna of Robert & Anne Moore born Aug. 6.
Phoebe of William & Phoebe Manly born Sept. 1.
William of George & Lucey Monk born Aug. 17.
Susanna of John & Margaret Marsh born Oct. 10.
John of Richard & Mary Marrett born Oct. 26.
Tomasin of John & Joanna Mills born Oct. 30.
Robert of John & Abigail Mulberry born Nov. 17.
Christopher of Christopher & Mary Monk born Dec. 16.
Rebecca of Benjamin & Rebecca Marshal born Jan. 15.
Ruth of Andrew & Ruth Mariner born Feb. 6.
Sarah of John & Sarah Melleson born Feb. 3.
Joseph of Henry & Alice Mare born Mar. 13.
Susanna of John & Sarah Mason born Mar. 19.
Joseph of Joseph & Mary Moss born Mar. 22.
Elizabeth of Thomas & Elizabeth Messenger born Mar. 23.
Sarah of Thomas & Hannah Narramore born Aug. 10.
Michael of Michael & ——— Nowell born Aug. 18.
John of John & Susanna Nichols born Dec. 6.
Sarah of John & Sarah Oliver born May 4.
Samuel of Peter & Hannah Odlin born May 6.
Mary of John & Mary Okey born Oct. 8.
Martha of John & Hannah Orris born Oct. 15.
Regnal of Regnal & Priscilla Odal born Jan. 20.
Hannah of Nathaniel & Hannah Parkman born Mar. 30.
William of Moses & Mary Peirce born Apr. 11.
Mary of Thomas & Mary Parris born May 27.
Elizabeth of William & Sarah Paine born June 21.
Peter of Roger & Hannah Prouse born May 1.
Mary of Edward & Elizabeth Perry born ———.
Joseph of Joseph & Sarah Peck born June 8.
Gillam of Samuel & Hannah Phillips born Sept. 25.
Elizabeth of Thomas & Elizabeth Pike born Oct. 29.
Sarah of Job & Rebecca Prince born Nov. 28.
James of James & Tomasin Peniman born Dec. 11.
Bethiah of Joseph & Bethiah Parson born Jan. 1.
Edeth of William & Catharine Paine born Feb. 8.
Hannah of George & Elizabeth Pordage born Feb. 13.
John of Samuel & Mary Pearse born Feb. 17.
Elizabeth of Nathanll & Mary Pulman born Feb. 11.
Jane of Edmund & Susanna Perkins born Feb. 25.

Elias of William & Eliza. Parkman born Feb. 27.
 Joseph of Joseph & Lydia Pearse born Mar. 24.
 Sarah of Richard & Sarah Riecraft born May 10.
 Dorothy of William & Ann Rawson born June 19.
 Christian of John & Eunice Robinson born June 11.
 Thomas of John & Mercy Rowlistone born July 28.
 Thomas of Thomas & Mary Rowe born July 27.
 Edward of Edward & Huldah Rainsford born July 18.
 Nathaniel of Obadiah & Elizabeth Read born Aug. 23.
 Elizabeth of Thomas & Sarah Robinson born Sept. 26.
 Mercy of Thomas & Mercy Raper born Oct. 8.
 Elizabeth of Joseph & Eliza. Rogers born Oct. 10.
 Sarah of Samuel & Dyonisia Ravenscroft born Nov. 20.
 Edmond of John & Mary Roberts born Dec. 7.
 Judith of Stephen & Judith Robino born Jan. 1.
 John of Daniel & Ruth Royce born Jan. 23.
 Lydia of Charles & Mary Raven born Jan. 23.
 Esther of Robert & Ann Shelstone born May 4.
 Mary of Henry & Purchase Spray born May 22.
 Ann of Arthur & Sarah Smith born June 15.
 Mary of William & Mary Shortrigs born Apr. 29.
 Mary of Josiah & Mary Stone born Apr. 4.
 John of William & Mary Slack born Apr. 19.
 John of John & Mary Stevens born July 2.
 Rebecca of Alexander & Rebecca Seers born Aug. 12.
 Prudence of Philip & Margaret Squire born Aug. 15.
 Joanna of John & Jane Smith born Aug. 28.
 Lydia of Thomas & Eliza. Savage born Sept. 6.
 Elisha of Jabez & Eliza. Salter born Oct. 9.
 Christopher of Joseph & Hanna Souther born Oct. 1.
 Grace of William & Mary Starling born Oct. 28.
 Ann of Rowland & Anne Storey born Oct. 28.
 Susanna of Robert & Mary Saunders born Dec. 15.
 Benjamin of John & Hannah Somes born Jan. 8.
 William of William & Martha Smallage born Jan. 13.
 Benjamin of Ralph & Susanna Straker born Jan. 15.
 John of Ephraim & Mary Sale born Jan. 17.
 Gifford of John & Mary Squire born Jan. 22.
 Hannah of Ephraim & Sarah Savage born Jan. 17.
 Sarah of John & Ann Symonds born Jan. 25.
 Stephen of Samuel & Hannah Sewall born Jan. 31.
 Hannah of William & Hannah Smith born Feb. 1.
 Daniel of Daniel & Elizabeth Stoddard born Mar. 6.
 Samuel of Matthias & Elizabeth Smith born Mar. 21.
 Mary of William & Mary Thwing born Apr. 7.
 Benjamin of Edward & Eliza. Thwing born Apr. 14.
 Richard of John & Mary Trow born July 29.
 Mary of Joseph & Tomasin Tailor born Oct. 30.
 Woodward of Jeremiah & Mercy Tay born Feb. 12.
 Mehetable of John & Penelope Verin born Feb. 25.
 Susanna of Isaac & Mary Vergoose born May 5.
 Mary of Samuel & Mehetable Worden born May 4.
 Samuel of Samuel & Hannah White born July 7.
 Mary of James & Mary Webster born July 15.
 John of Henry & Sarah Wright born Aug. 3.
 Elizabeth of Return & Martha Wayte born Aug. 6.
 Joshua of Samuel & Elizabeth Wakefield born Aug. 19.
 Elizabeth of Joseph & Lydia Williams born Aug. 22.
 Abiel of John & Elizabeth Walley born Aug. 30.
 Rebecca of Thomas & Rebecca Walker born Sept. 6.
 Gamaliel of John & Eunice Wayt born Sept. 24.
 Mercy of Richard & Ann West born Sept. 28.
 Mary of Samuel & Sarah Walker born Oct. 2.
 Barachiah of John & Elizabeth Webber born Oct. 4.

Dorothy of Richard & Martha Wharton born Oct. 26.
 Francis of Francis & Mary Williams born Oct. 12.
 John of James & Elizabeth Worth born Jan. 27.
 John of John & Sarah Ware born Feb. 18.
 James of Nathanll & Mary Williams born Mar. 3.
 Obadiah of Michael & Elizabeth Willis born Mar. 5.
 Samuel of Obadiah & Susanna Wakefield born Mar. 15.
 Eliza. of Cornelius & Faith Waldo born Jan. 7.
 Thomas of John & Eliza. Welch born Jan. 9.
 Elizabeth of William & Juda Youres born May 2.

William Weeler & Ann Phippen were married May 16.

FIRST CHURCH.

Samuel of Wm. Griggs	Sept. 26.
Joseph of Lydia Clough	Feby. 13.
John of Lydia Clough	Feby. 13.
Elizabeth Fisher born Oct. 1685	Oct.
Joseph of John Marion	June 13.

1687.

TOWN.

Benjamin of Daniel & Mariana Allin born Apr. 26.
 Samuel of John & Sarah Atwood born May 18.
 Dorothy of Edward & Mary Ashley born July 11.
 John of Thomas & Mary Atwood born July 17.
 Hopestill of Henry & Judith Allen born July 16.
 John of Josiah & Hannah Abbot born Aug. 22.
 Rebecca of John & Constance Alcock born Aug. 29.
 Isaac of Joseph & Mary Alberry born Sept. 16.
 Elizabeth of John & Elizabeth Allen born Oct. 31.
 John of John & Mary Alberry born Jan. 4.
 Elizabeth of John & Elizabeth Alden born Nov. 7.
 Abigail of Abraham & Abigail Adams born Jan. 25.
 Elizabeth of James & Eliza. Adlington born Feb. 5.
 Samuel of Joshua & Mary Atwater born Mar. 3.
 William of Jona. & Frances Bill born May 17.
 John of John & Mary Blake born May 28.
 Kathar. of John & Margt. Besheau born June 10.
 Mary of John & Sarah Birge born June 9.
 Mary of Thomas & Mary Baker born June 14.
 Sarah of Joshua & Sarah Bradbent born June 14.
 Peter of Peter & Sarah Bradshaw born June 9.
 Tabitha of Stephen & Tabitha Butler born June 16.
 Peter of John & Joanna Bennit born June 17.
 Jonah of John & Mary Bonner born July 8.
 Nathaniel of Jonath. & Susanna Balston born July 27.
 Ebenezer of Samuel & Hannah Bridge born Aug. 2.
 John of John & Sarah Bushnell born Aug. 4.
 Richard of Richard & Margaret Beedon born Aug. 9.
 John of Thomas & Lydia Burrington born Aug. 21.
 Mary of Edward & Mary Bromfield born Aug. 23.
 Elizabeth of Henry & Sarah Bennet born Aug. 23.
 Sarah of William & Secunda Brown born Aug. 24.
 Joseph of Joseph & Lydia Bill born Aug. 26.
 David of David & Mary Bassett born Sept. 3.
 Lydia of Thomas & Rebecca Bayly born Sept. 6.
 Benjamin of James & Sarah Burgis born Sept. 10.
 John of John & Abiga. Brookings born Sept. 23.
 Hannah of James & Mehetable Bill born Sept. 27.

William of William & Hannah Bryant born Oct. 5. .
 William of Clampet & Jane Beer born Oct. 11.
 Benjamin of James & Temperance Barnes born Oct. 25.
 John of Thomas & Esther Bulkeley born Nov. 9.
 Mary of Samuel & Martha Burril born Dec. 10.
 Mary of Jonathan & Eliza Bridgeham born Dec. 16.
 John of William & Hannah Billing born Jan. 13.
 Thomas of Thomas & Elizabeth Burton born Jan. 16.
 John of Peter & Elizabeth Butler born Jan. 21.
 Elizabeth of George & Elizabeth Beard born Jan. 23.
 Ann of Samuel & Ann Beighton born Jan. 29.
 John of William & Joan Badlam born Feb. 8.
 Sarah of James & Elizabeth Burgis born Mar. 18.
 Phillip of Phillip & Ann Blackley born Feb. 16.
 Katharine } of Timothy & Sarah Clarke born Apr. 6.
 Sarah } of Timothy & Sarah Clarke born Apr. 6.
 Sarah of Peter & Penelope Clarke born Apr. 7.
 William of William & Martha Cole born Apr. 14.
 Thomas of Edward & Sarah Cowell born Apr. 15.
 William of Samuel & Mary Checkley born Apr. 18.
 Jonathan of Jona. & Joanna Cockcroft born May 15.
 William of Duncan & Susanna Campbell born May 27.
 Ann of Samuel & Elizabeth Checkley born May 30.
 Lydia of Richard & Ann Christophers born July 1.
 Edward of Edward & Sarah Collins born July 3.
 Mary of David & Mary Crouch born July 4.
 Ellener of John & Ruth Center born July 6.
 John of John & Ann Cotton born Sept. 4.
 Mary of William & Mary Clap born Sept. 18.
 Sarah of John & Joanna Carthew born Oct. 13.
 Joanna of George & Sarah Callender born Oct. 23.
 Mercy of Peirey & Elizabeth Clarke born Oct. 29.
 John of Robert & Mary Clap born Nov. 7.
 Mary of John & Sarah Coney born Nov. 8.
 John of John & Mary Curtis born Nov. 8.
 Ann of Henry & Mary Cole born Nov. 9.
 Edward of Edward Pepper & Sarah Crague born Dec. 6.
 Joshua of Thomas & Sarah Cheever born Jan. 6.
 Rachel of Jonas & Mary Clay born Jan. 28.
 Ann of John & Hannah Clap born Jan. 30.
 Elizabeth of John & Martha Cornish born Feb. 15.
 Elizabeth of Ellis & Mary Callender born Feb. 20.
 Thomas of James & Mary Cornish born Mar. 18.
 Joanna of Jonathan & Hannah Dawes born Apr. 21.
 Mary of Joseph & Anna Dease born May 22.
 Thomas of Thomas & Martha Davis born July 3.
 Elizabeth of Robert & Elizabeth Dawson born July 10.
 George of John & Hannah Davis born July 22.
 Rebecca of Nicholas & Rebecca Davis born Dec. 21.
 Mary of Henry & Abigaile Dawson born Jan. 14.
 Mary of Sampson & Sarah Dewer born Feb. 1.
 William of Charles & Rachel Deale born Feb. 5.
 John of David & Mary Edwards born May 19.
 Thomas of John & Catherine Eyre born June 21.
 Samuel of Benja. & Mary Emons born July 28.
 Ellener of John & Mary Earle born Sept. 3.
 Nicholas of William & Elizabeth Edees born Sept. 21.
 Mary of William & Abigail Everdon born Oct. 7.
 Mary of Andrew & Sarah Eliott born Dec. 23.
 Abigail of John & Mary Earthy born Dec. 28.
 Christopher of Richard & Jane English born Jan. 27.
 Elias of Richard & Mary Ellis born Mar. 14.
 Susanna of David & Dorothy Farnam born Apr. 7.
 Giles of Giles & Elizabeth Fyfield born Apr. 18.

Ebenezer of William & Elizabeth Fisher born May 19.
James of John & Sarah Fosdike born July 28.
Elizabeth of Thomas & Elizabeth Fox born Sept. 6.
John of Thomas & Mehetable Ford born Dec. 27.
John of Jonathan & Sarah Franklin born Dec. 21.
Joseph of Josiah & Ann Franklin born Jan. 5.
Samuel of John & Dorothy Foy born Feb. 15.
Susanna of Robert & Elizabeth Fethergill born Feb. 22.
Lydia of John & Lydia Foster born Feb. 25.
James of John & Amey Figg born Feb. 13.
Joseph of Enoch & Kate Greenleaf born Apr. 4.
Jotham of Jotham & Margaret Grover born Apr. 11.
James of Joseph & Lydia Griffin born Apr. 12.
James of James & Joanna Grant born June 16.
Thomas of Thomas & Experience Gold born June 19.
Thomas of Thomas & Frances Gold born July 4.
William of Bastian & Elizabeth Geffeere born Aug. 19.
Elizabeth of Samuel & Grace Goodman born Aug. 29.
William of John & Hannah Goffe born Sept. 29.
Elizabeth of Samuel & Elizabeth Greenwood born Oct. 18.
William of John & Hannah Greenleaf born Nov. 4.
Hannah of John & Martha Goodwin born Dec. 18.
Elizabeth of Robert & Elizabeth Gelgris born Dec. 29.
Martha of Samuel & Mary Greenwood born Jan. 8.
William of James & Elizabeth Glass born Jan. 11.
John of William & Anne Gibbins born Jan. 11.
Margaret of William & Hannah Gibson born Jan. 22.
Lately of John & Joane Gee born Feb. 4.
Joseph of Samuel & Susanna Gray born Dec. 6.
Hannah of John & Susanna Herod born Mar. 31.
Nicholas of Thomas & Bridget Hay born June 13.
Elizabeth of Richard & Elizabeth Harris born July 1.
Rachel of Benja & Mehetable Harwood born July 3.
William of John & Elizabeth Higgs born Aug. 15.
Samuel of Samuel & Abigail Hudson born Sept. 20.
Martha of Jacob & Martha Hewens born Oct. 1.
Sarah of Daniel & Sarah Harris born Oct. 18.
Mercy of James & Lydia Hawkins born Oct. 29.
Mary of William & Ann Hollowell born Dec. 26.
James of James & Elizabeth Hobson born Jan. 1.
Elizabeth of Thomas & Judith Hunt born Jan. 4.
Lydia of William & Patience Heyden born Jan. 9.
John of Arthur & Mary Hale born Jan. 16.
Ebenezer of John & Deborah Hurd born Jan. 7.
Benjamin of Joseph & Susanna Hiller born Jan. 19.
Mary of Thomas & Rebecca Harris born Jan. 30.
Benjamin of Thomas & Abigail Hatherly born Jan. 31.
John of Abrahah. & Elizabeth Harrison born Feb. 5.
Remember of William & Elizabeth Hewes born Mar. 7.
George of George & Anne Hollard born Mar. 19.
Hannah of Job & Hannah Ingram born June 24.
Joseph of Henry & Lydia Ingram born Aug. 18.
Joseph of John & Elizabeth Indecot born Nov. 1.
Elizabeth of William & Elizabeth Ireland born Feb. 24.
John of John & Mary Jarvis born May 8.
Mary of Isaac & Mary Jones born Apr. 9.
Thomas of Thomas & Temperance Jackson born May 29.
Jane of David & Elizabeth Jeffreys born July 4.
Thomas of Thomas & Elizabeth Johnson born Aug. 2.
John of John & Ruth Jepson born Aug. 24.
Susanna of Samuel & Mary Jones born Aug. 27.
Benjamin of Samuel & Elizabeth Johnson born Sept. 22.
Joseph of Joseph & Elizabeth Jackson born Nov. 3.
Robert of David & Priscilla Johnson born Nov. 24.

John of John & Sarah Jenkins born Nov. 27.
 James of John & Rachel Kind born May 21.
 Mary of John & Abigail Keech born May 24.
 John of Peter & Mary King born July 26.
 Elizabeth of Thomas & Elizabeth Kellond born Aug. 6.
 Elizabeth of Roger & Anne Kilkup born Aug. 10.
 Zachariah of Thomas & Mary Kirke born Nov. 6.
 Elizabeth of John & Elizabeth Leech born Apr. 7.
 John of John & Mary Leech born Apr. 17.
 Elizabeth of John & Elizabeth Lane born May 10.
 Mary of Thomas & Opportunity Lane born June 14.
 Mary of Richard & Susanna Leatherer born July 14.
 Jane of Thomas & Jane Larkin born July 16.
 Richard of Lawrance & Catharine Lott born Sept. 3.
 Charles of Charles & Mary Lidgett born Sept. 28.
 John of John & Esther Lowell born Nov. 6.
 Samuel of Philip & Mary Langdon born Dec. 22.
 Jonathan of David & Martha Langdon born Jan. 2.
 Susanna of Thomas & Susanna Lane born Jan. 23.
 Josiah of John & Elizabeth Langdon born Jan. 28.
 John of Isaac & Mary Lewis born Feb. 25.
 Francis of John & Lydia Moore born Apr. 8.
 George of George & Hannah Matthews born May 1.
 Mary of Samuel & Hannah Marion born June 18.
 William of Francis & Martha Marshal born July 10.
 Thomas of Thomas & Sarah Martin born Aug. 9.
 Rebecca of Stephen & Mercy Minot born Aug. 20.
 Abigail of Cotton & Abigail Mather born Aug. 22.
 John of John & Ann Marion born Aug. 29.
 Rebecca of Henry & Rachel Maddux born Oct. 9.
 Mary of William & Mary Morto born Oct. 12.
 William of John & Phoebe Marshal born Oct. 12.
 Peter of Thomas & Catharine Moussett born Oct. 18.
 Joanna of William & Eliza. Middleton born Nov. 8.
 Phoebe of William & Phoebe Manly born Nov. 29.
 Elizabeth of Florence & Eliza. Maccarty born Dec. 25.
 John of James & Eliza. Marshal born Jan. 12.
 Joseph of Paul & Elizabeth Miller born Jan 27.
 Joseph of John & Dorothy Matton born Feb. 2.
 Henry of Henry & Ruth Mountfort born Feb. 12.
 Samuel of James & Hannah Merrick born Jan. 29.
 Abigail of William & Susanna Millborn born Apr. 28.
 Mehetable of John & Eliza. Needham born Dec. 17.
 John of John & Susanna Nichols born Jan. 14.
 James of Nathanll. & Elizabeth Oliver born Oct. 27.
 James of Thomas & Martha Oakes born Oct. 30.
 Samuel of Regnal & Priscilla Odall born Jan. 29.
 John of John & Sarah Oliver born Feb. 20.
 John of John & Rachel Pascho born Apr. 1.
 Grace of Samuel & Elizabeth Phelps born Apr. 5.
 James of Alexander & Sarah Prindle born Apr. 24.
 Ann of William & Elizabeth Porter born June 15.
 Benjamin of Benja. and Mary Peck born July 22.
 Thomas of John & Eliza. Plaistead born Aug. 17.
 Hannah of James & Susanna Prior born Sept. 1.
 Mary of Thomas & Mary Parris born Sept. 25.
 Edward of Edward & Elizabeth Pell born Oct. 19.
 James of Thomas & Ruth Prince born Nov. 23.
 Joshua of William & Constance Palfroy born Dec. 19.
 William of William & Margaret Pollard born Dec. 21.
 Sarah of Ebenezer & Sarah Plumb born Dec. 23.
 Samuel of John & Elizabeth Peck born Dec. 27.
 Susanna of Samuel & Elizabeth Parris born Jan. 9.
 Nathaniel of Moses and Mary Peirse born Jan. 11.

Arimnel of John & Eliza. Palmer born Mar. 4.
Mercy of Joseph & Mercy Pennywell born Mar. 7.
Tabitha of Nathaniel & Tabitha Peck born Mar. 14.
Eliza. of John & Elizabeth Pearse born Dec. 19.
Mary of Richard & Joanna Read born Mar. 26.
Richard of Solomon & Priscilla Rainsford born June 25.
Ebenezer of William & Ann Rawson born July 24.
Martha of George & Eliza. Robinson born Aug. 8.
Michael of William & Sarah Rowse born Oct. 12.
Mary of William & Elizabeth Robie born Oct. 19.
Sarah of Nathanll. & Sarah Reynolds born Oct. 23.
Joseph of Joseph & Mary Russell born Dec. 12.
Samuel of Samuel & Anne Ruck born Dec. 14.
Richard of Richard & Sarah Ricroft born Jan. 22.
James of James & Sarah Robe born Jan. 30.
Sarah of Obadiah & Elizabeth Read born Jan. 26.
Elizabeth of Abraham & Elizabeth Rue born Mar. 10.
Thomas of Samuel & Susanna Sexton born Apr. 8.
Samuel of Epaphras & Rebecca Shrimpton born Apr. 9.
Lancelot of Francis & Catharine Stepney born Apr. 13.
Elizabeth of Roger & Elizabeth Stayner born Apr. 13.
Elizabeth of William & Elizabeth Stretton born Apr. 20.
Hannah of Joseph & Hannah Simpson born June 18.
Mercy of Constant & Elizabeth Sams born July 3.
Abigail of Robert & Abigail Seers born July 12.
Sarah of James & Mary Smith born July 24.
Charles of Edward & Mary Summer born Aug. 12.
James of John & Mary Shory born Aug. 21.
Joseph of Eleazer & Martha Starr born Aug. 26.
Sarah of John & Martha Symons born Aug. 31.
John of Nathanll & Mary Saunders born Sept. 2.
Sarah of Thomas & Eliza. Skinner born Sept. 18.
Hannah of Joseph & Anne Stocker born Sept. 27.
Rebecca of John & Jane Smith born Oct. 16.
Mary of Thomas & Rebecca Smith born Nov. 9.
Rebecca of Thomas & Rebecca Smith born Dec. 22.
Pilgrim of William & Jane Shipreve born Dec. 25.
Lydia of Henry & Purchase Spry born Jan. 4.
Thomas of Thomas & Jane Stedman born Jan. 8.
Thomas of Joseph & Ruth Shaw born Jan. 15.
John of Rowland & Ann Storey born Feb. 3.
Abigail of Richard & Rachel Skinner born Feb. 2.
Jonathan of Simeon & Mary Stoddard born Feb. 6.
Samuel of William & Mary Slack born Jan. 22.
William of Michael & Sarah Shaller born Feb. 29.
Ann of John & Ruth Soul born Mar. 10.
Lydia of Edward & Esther Stevens born Mar. 20.
Mary of Arthur & Sarah Smith born Mar. 21.
Rebecca of George & Rebecca Thomas born Mar. 25.
John of Nathanll & Deborah Thayer born Apr. 2.
Eleazer of Samuel & Sarah Tely born June 10.
John of Samuel & Lydia Turell born July 3.
John of Thomas & Miram Tyler born July 14.
Hannah of John & Martha Temple born July 28.
Isaac of Penn & Sarah Townsend born Aug. 14.
Joshua of William & Ruth Turner born Aug. 20.
Mary of James & Eliza. Townshend born Oct. 27.
Hannah of Peter & Ann Townsend born Oct. 27.
Anna of Daniel & Anna Turell born Oct. 30.
Sarah of William & Sarah Thompson born Nov. 20.
Samuel of James & Rebecca Taylor born Dec. 5.
Abigail of Richard & Sarah Talley born Jan. 18.
Priscilla of Timothy & Experience Thornton born Feb. 23.
Joshua of Edward & Abigail Tuttle born July 20.

Elizabeth of David & Mary Vaughan born Apr. 6.
 Mary of Samuel & Mary Veazy born June 17.
 Susanna of Isaac & Mary Vergoose born Mar. 8.
 Dorothy of Edward & Jane Weeden born Apr. 22.
 Elizabeth of Benjamin & Rachel Williams born May 7.
 William of Francis & Mary Whitman born May 9.
 Ebenezer of Benja. & Palsg. Walker born May 23.
 Samuel of William & Mary Wilson born July 5.
 Henry of John & — Wooddee born July 19.
 Susanna of Richard & Phoebe Whitridge born Aug. 10.
 Ruth of Richard & Eliza. Willee born Oct. 13.
 Susanna of Timothy & Susanna Wadsworth born Oct. 29.
 Sarah of John & Ruth Weeden born Nov. 16.
 Joseph of William & Sarah Williams born Nov. 30.
 Margaret of Samuel & Eunice Willard born Dec. 3.
 Mary of Return & Martha Wayt born Dec. 24.
 William of John & Elizabeth Walley born Dec. 23.
 Elizabeth of Jonathan & Sarah Wales born Jan. 19.
 Thomas of Thomas & Sarah Wheeler born Jan. 31.
 Joseph of Andrew & Dorothy Wood born Mar. 4.
 Thomas of Thomas & Rebecca Walker born Mar. 13.
 Andrew of Andrew & Elizabeth White born Mar. 12.
 Maudlin of Robart & Luce Ward (Negros) born Oct. 9.

Thomas Cushing & Deborah Thaxter were married by the Rev. Samuel Willard Oct. 17.

John Darling & Ann Rocket were married Jan. 2.

John Farnun & Deborah Mean were married Sept. 16.

Thomas White & Mehitabel Thornton were married Dec.

FIRST CHURCH.

Giffard Squire	Jan. 30.
Abigail of John Clough	2d mo.
Francis of John Moore	Apr.
Ebenezer Fisher born 19 May	May 22.
John of John Marion	Sept. 4.
William Peck	
John of John Harrison aged 1 year.	June 18.
Mary of Samuel Mirian aged about 2 or 3 days.	June 18.
Elizabeth of Richard Harris' wife aged 2 days.	July 2.
Hopstill of Henry Allin Deacon aged 2 days.	July 17.
Dorothy of brother Ashley aged about 1 week.	July 17.
John of sister Arnold	July 17.
George of brother Davies	July 24.
Hannah of John Temple aged about 3 days.	July 21.
Judith of sister Vee aged 1 year.	July 21.
Isaack of Pen Towsend born August 13.	Aug. 13.
Joseph of sister Ingram	Aug 21.
John of John Miriam Junior	Sept 4.
Benjamin Burgesse	Sept 11.
Elizabeth Foxe	Sept. 11.
Benjamin Barnes	Oct. 30.
Hannah Townsend	Oct. 30.
Mary Townsend	Oct. 30.
Mercy Hawkins	Oct. 30.
Mercy Clarke	Oct. 30.
William Groenleife	Nov. 6.
Henry Woody	Nov. 6.
John Bulkly of sister Esther Bulkly	Nov. 13.
Jeremiah Peck son to a sister belonging to Mr. Wills	Nov. 27.
Sarah Blake	Dec. 25.
John of Sarah Blake	Dec. 25.

Mary of Sarah Blake	Dec. 25.
Sam Pecke	Jan. 1.
Susannah Parris	Jan. 15.
Samuel Flack	Jan. 22.
Richard Ricott	Jan. 29.
Margaret Gibson	Feb. 5.
Mary Diore	Feb. 5.

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TOWN.

Mary of John & Sarah Aulgar born Apr. 19.
 Priscilla of Bozoun & Lydia Allen born Apr. 22.
 Lydia of William & Phillis Arnold born Apr. 22.
 Abigail of Thomas & Mary Atkins born June 3.
 Elizabeth of John & Grace Allisett born July 5.
 Judeth of Benja. & Mary Alford born Sept. 13.
 Daniel of Daniel & Mariana Allen born July 27.
 Sarah of John & Sarah Atwood born Nov. 14.
 John of John & Elizabeth Allen born Nov. 25.
 Hannah of John & Elizabeth Alden born Nov. 20.
 Eliphail of Tobias & Anne Atkins born Dec. 4.
 Lydia of Jona. & Rebecca Adams born Dec. 24.
 Ann of John & Avis Adams born Feb. 16.
 Abigail of Oliver & Gantrig Berry born May 10.
 Elizabeth of Thomas & Sarah Baker born June 5.
 Lydia of John & Ann Balston born June 22.
 Jarvis of Jarvis & Martha Ballard born July 10.
 Sarah of John & Sarah Birge born July 15.
 Joseph } of Daniel & Sarah Ballard born July 16.
 Benja. } of Daniel & Sarah Ballard born July 16.
 John of Edward & Mary Bertles born July 28.
 Benjamin of William & Elizabeth Burt born Aug. 9.
 Mary of Grimstone & Elizabeth Bond born Aug. 13.
 Mary of John & Esther Barnard born Aug. 14.
 Mary of John & Susanna Butler born Aug. 15.
 Joseph of Samuel & Hannah Bickner born Aug. 17.
 James of James & Grace Butler born Aug. 21.
 ——— son of William & Joanna Boulderson born Sept. 18.
 Hannah of Thomas & Sarah Banister born Sept. 30.
 Elizabeth of Peter & ——— Barber born Oct. 8.
 Lydia of Phillip & Sarah Bass born Dec. 6.
 John of John & Mercy Booker born Dec. 18.
 Mary of William & Mary Browne born Dec. 30.
 William of William & Mary Browne born Dec. 30.
 Ann of George & Ann Beaverly born Jan. 2.
 Joanna of John & Joanna Bennet born Jan. 7.
 James of James & Rachel Barrey born Jan. 8.
 Hannah of William & Hannah Billing born Jan. 26.
 Mary of John & Mary Bonner born Jan. 28.
 Ebenezer of Samuel & Martha Burrell born Feb. 1.
 Ann of William & Mary Barnsdale born Feb. 1.
 Elizabeth of Samuel & Anne Burnell born Feb. 5.
 James of Robert & Eliza. Butcher born Feb. 8.
 Robert of Thomas & Joanna Barnes born Feb. 15.
 John of Phillip & Margaret Barger born Feb. 17.
 Sarah of Peter & Sarah Bradshaw born Mar. 3.
 Ebenezer of James & Sarah Burgis born Mar. 10.
 Thomas of Thomas & Mary Bossinger born Mar. 10.
 William of William & Secunda Browne born Mar. 21.
 James of James & Sarah Balston born July 29.
 Abigall of Francis & Frances Buckitt born Oct. 8.

Mary of Jonathan & Rebecca Charles born Apr. 6.
Hannah of Mungo & Mary Crafford born Apr. 7.
Mary of John & Kathar. Carlton born Apr. 26.
Mary of John & Mary Cole born May 9.
James of James & Mary Correll born May 15.
Mary of ——— & Mary Cooke born May 25.
Richard of Matthew & Naomi Calline born June 25.
Thomas of Thomas & Mehetable Cooper born June 27.
Joseph of Nathanll & Anne Callo born July 10.
Thomas of Thomas & Anne Cooke born Aug. 2.
Ezekiel of Charles & Mary Couilly born Aug. 27.
John of Thomas & Deborah Cushing born Sept. 6.
Hannah of John & Hannah Collins born Sept. 18.
Mary of John & Martha Clough born Sept. 23.
William of Stephen & Margaret Clifford born Sept. 25.
Lydia of William & Lydia Clough born Nov. 4.
Henry of Richard & Ann Christophers born Nov. 16.
Andrew of Andrew & Sarah Cunningham born Nov. 29.
Sarah of William & Susan Critchfield born Dec. 7.
Grace of Jonathn & Joanna Cockcroft born Nov. 10.
David of David & Mary Crouch born Dec. 18.
John of John & Eliza. Cranmer born Dec. 21.
Henry of Henry & Mary Cole born Jan. 2.
John of John & Elizabeth Coombs born Jan. 7.
Elizabeth of Job & Joan Chamberlain born Jan. 11.
Sarah of John & Mary Cotta born Jan. 10.
William of William & Christian Condey born Jan. 12.
Edward of Robert & Mary Calef born Jan. 30.
Joshua of Samuel & Mary Checkley born Feb. 8.
Rebecca of Samuel & Eliza. Checkley born Feb. 4.
Martha of William & Martha Cole born Feb. 7.
Archbald of Duncan & Susanna Campbell born Feb. 10.
David of David & Eliza. Carwithen born Mar. 8.
Paul of Paul & Mary Collings born Aug. 15.
Mary of Eleazer & Mary Darby born Apr. 3.
Joseph of Charles & Sarah Demaree born Nov. 12.
Jacob of Jacob & Susanna Davis born Nov. 2.
Abigail of Thomas & Martha Davis born Nov. 20.
Mary of William & Mary Down born Dec. 24.
James of John & Elizabeth Davis born Jan. 15.
Mary of Henry & Abigail Dawson born Mar. 7.
Benjamin of Henry & Elizabeth Emes born Apr. 6.
Sarah of John & Elizabeth Eustis born Apr. 6.
Mary of John & Mary Earle born July 10.
Martha of John & Catharine Eyre born Jan. 28.
Elizabeth of John & Catharine Eades born Feb. 11.
Martha of Francis & Elizabeth Foxcroft born Mar. 26.
Thomas of Thomas & Elizabeth Fenton born Apr. 14.
Thomas of Thomas & Elizabeth Fox born July 15.
Susanna of John & Dorothy Farnham born Aug. 1.
Abraham of Abraham & Mary Francis born Sept. 10.
Abigail of John & Mary Fairfield born Oct. 20.
John of Jonathan & Martha Farnum born Jan. 4.
Eleazer of Gibson & Rebecca Farr born Jan. 15.
Susanna of Giles & Elizabeth Fifield born Jan. 17.
Sarah of Hugh & Ellener Floyd born Jan. 28.
Susanna of David & Elizabeth Falkner born Mar. 14.
William of William & Thankful Griggs born Apr. 6.
Jeremiah of John & Susanna Gardner born Apr. 12.
Anna of William & Eliza. Greenough born May 5.
Rebecca of James & Anna Green born May 19.
Mary of Nicholas & Mary George born June 28.
Abigail of Richard & Abigail Gridley born July 17.
William of Isaac & ——— Gross born Sept. 8.

Ezekiel of Ezekiel & Mary Grazillier born Oct. 8.
 Rachel of Enoch & Catharine Greenleafe born Nov. 10.
 Thomas of Anthony & Dorcas Gretian born Nov. 18.
 Hannah of Joseph & Hannah Gallop born Dec. 2.
 Ann of Benja. & Abigail Gillam born Dec. 11.
 Dean of Jotham & Margaret Grover born Jan. 7.
 Susanna of Samuel & Susanna Gray born Jan. 3.
 Nicholas of Nicholas & Mary George born Jan. 23.
 Sarah of Henry & Sarah Gibbs born Jan. 19.
 Abigail of Christopher & Abigail Goffe born Jan. 21.
 Thomas of Thomas & Experience Gold born Jan. 29.
 Mercy of William & Hannah Gibson born Feb. 11.
 Rachel of Joseph & Sarah Greenleafe born Feb. 17.
 Elizabeth of Joseph & Hannah Hasey born Mar. 28.
 Isaac of Isaac & Hannah Hallom born Apr. 8.
 Priscilla of Thomas & Mary Hunt born Apr. 11.
 Christopher of John & Sarah Holland born May 22.
 Ephraim of James & Sarah Harris born July 11.
 John of Francis & Joanna Holland born Aug. 19.
 Samuel of William & Hannah Harris born Oct. 23.
 James of James & Hannah Hawkins born Nov. 18.
 Mary of William & Mary Hough born Dec. 31.
 Joseph of James & Elizabeth Hews born Jan. 7.
 Daniel of Hezekiah & Abigail Henschman born Jan. 21.
 Elizabeth of Ephraim & Sarah Hall born Jan. 21.
 Martha of Sarah Harris & Henry Lilly born Jan. 20.
 Hannah of William & Experience Heyden born Jan. 31.
 James of Thomas & Esther Hamlen born Feb. 6.
 Martha of Edward & Lydia Hilliard born Feb. 8.
 William of John & Hannah Hobbey born Mar. 14.
 Mary of Robert & Martha Ireland born Apr. 26.
 Grace of John & Grace Ireland born May 3.
 Samuel of Thomas & Mildred Inglesby born June 16.
 Michael of Robert & Susanna Ireland born Aug. 14.
 Margaret of Job & Hannah Ingram born Aug. 27.
 Sarah of William & Sarah Johnson born May 20.
 Joseph of Aaron & Mary Jeffers born June 9.
 Samuel of Thomas & Elizabeth Johnston born Sept. 19.
 Susanna of Mathew & Susanna Jones born Oct. 31.
 Sarah of Thomas & Dorothy Jennings born Dec. 9.
 Samuel of William & Lydia Jeffrey born Dec. 24.
 John of John & Hannah Jones born Jan. 22.
 John of David & Elizabeth Jeffries born Feb. 5.
 Samuel of Samuel & Mary Jones born Feb. 9.
 Daniel of Moses & Susanna Jacth born March 16.
 Elizabeth of Thomas & Temperance Jackson born Mar. 14.
 Emm of John & Emm Kally born May 6.
 John of William & Jane Keen born Aug. 31.
 Elizabeth of John & Abigail Keech born Aug. 31.
 John of John & Rebecca Kilbey born Dec. 24.
 James of William & Deborah King. born Jan. 27.
 Susanna of Elhanan & Mary Lyon born July 11.
 Zibeon } of Zibeon & Rachel Letherland born Aug. 23.
 Rachel } of Zibeon & Rachel Letherland born Aug. 23.
 Sarah of Thomas & Jane Larkin born Sept. 28.
 Joseph of James & Grizzell Lloyd born Oct. 8.
 Richard of Richard & Anne Leekey born Dec. 17.
 Thomas of Thomas & Mercy Lesenby born Jan 21.
 Emm of Thomas & Susanna Lane born Jan. 28.
 Joanna of James & Elizabeth Loper born Feb. 6.
 Elizabeth of Robert & Rebecca Lewis born Feb. 12.
 Hannah of Samuel & Mehetable Lilly born Feb. 4.
 Thomas of Florance & Eliza. Maccarty born Feb. 5.
 Ebenezer of Ebenezer & Rose Messenger born Mar. 30.

Margaret of John & Margaret Mila born Apr. 9.
 Sarah of Thomas & Eliza. Messenger born Apr. 17.
 Jacob of John & Margaret Marsh born Apr. 28.
 Priscilla of Andrew & Ruth Mariner born May 1.
 Wiseman of Richard & Sarah Mussenan born May 3.
 Joseph of John & Abiga. Mulberry born May 16.
 John of Nathanll & Deborah Man born June 26.
 Robert of Edward & Jane Mortimore born July 31.
 Christopher of Benjamin & Rebecca Marshal born Sept. 9.
 John of Thomas & Eliza. Mercer born Sept. 6.
 Samuel of James & Dorcas Maxwell born Sept. 30.
 Hannah of George & Hannah Matthews born Oct. 6.
 Stephen of Stephen & Mercy Minot born Oct. 24.
 Samuel of Samuel & Ann Mattock born Dec. 17.
 Joanna of Samuel & Ruth Marshal born Dec. 24.
 Elizabeth of Robert & Eliza. Mogridge born Jan 8.
 Joseph of Joseph & ——— Moss born Jan. 18.
 William of John & Sarah Mellison born Jan. 13.
 Elizabeth of Francis & Martha Marshal born Feb. 21.
 Susanna of David & Tempera. Norton born Sept. 29.
 William of William & Lamey (negroes) born Feb. 9.
 John of Peter & Rebecca Noseter born July 16.
 Tacey of John & Mary Okey born May 9.
 Martha of John & Hannah Orris born Nov. 26.
 William of Samuel & Sarah Phillips born Apr. 1.
 William of William & Sarah Paine born June. 10.
 Edward of Edward & Abial Paige born Aug. 11.
 Elizabeth of John & Hannah Parmiter born Sept. 3.
 John of John & Hannah Pitcher born Sept. 23.
 Elizabeth of Nathanll & Mary Pulman born Sept. 20.
 Sarah of William & Elizabeth Porter born Nov. 7.
 Nehemiah of Samuel & Mary Pearce born Nov. 11.
 Mary of Thomas & Hannah Pemberton born Oct. 26.
 Thomas of John & Rachel Pascho born Dec. 4.
 Josiah of Job & Rebecca Prince born Dec. 5.
 Elias of William & Deborah Parkman born Oct. 9.
 Nathaniel of Nathaniel & Hannah Parkman born Oct. 29.
 Samuel of Benja. & Mary Peck born Jan. 19.
 Sarah of Thomas & Ama Pennant born Jan. 31.
 Sarah of John & Sarah Pymm born Mar. 8.
 Stephen of Thomas & Martha Raper born June 16.
 Thomas of Samuel & Dyonisia Ravenscroft born June. 29.
 Sarah of John & Eunice Robinson born Aug. 6.
 Susanna of Stephen & Jude Robino born Nov. 24.
 Joseph of John & Mercy Rowstone born Nov. 28.
 Susanna of Joseph & Eliza. Rogers born Dec. 4.
 Mary of Edmund & Barbary Robins born Dec. 6.
 Mary } of John & Experience Roberts born Dec. 25.
 Joseph { of John & Experience Roberts born Dec. 25.
 Jane of Gamaliel & Mary Rogers born Jan. 3.
 David of David & Hannah Rainsford born Jan. 29.
 Hannah of John & Hannah Ridgeaway born Feb. 12.
 John of John & Mary Robinson born Feb. 21.
 Thomas of William & Elizabeth Robie born Mar. 20.
 Mary of John & Elizabeth Strade born Apr. 6.
 Ralph of Ralph & Susanna Straker born May 9.
 Sarah of Josiah & Mary Stone born May 3.
 John of Gregory & Jane Sugars born May 26.
 Jeremiah of Hugh & Mary Sampson born June 4.
 Clorinda of Daniel & Charlot Streing born June 13.
 Hannah of Philip & Margaret Squire born July 28.
 Sampson of Thomas & Anne Shapcott born Aug. 5.
 Sarah of Alexander & Rebecca Seers born Aug. 11.
 Abigail of Bryant & Abigail Smith born Aug. 22.

Joseph of Samuel & Hannah Sewall born Aug. 15.
 Robert of Robert & Mary Saunders born Oct. 5.
 Samuel of Joseph & Hannah Souther born Dec. 1.
 John of John & Anne Simons born Dec. 26.
 Mercy of Constant. & Elizabeth Sams born Jan 12.
 Peter of John & Ann Smith born Jan. 21.
 Alexander of Joseph & Hannah Simpson born Jan. 25.
 Richard of Jabez & Elizabeth Salter born Feb. 3.
 Henry of Henry & Purchase Spry born Feb. 7.
 Hannah { of Thomas & Rebecca Smith born Feb. 18.
 Abial { of Thomas & Rebecca Smith born Feb. 18.
 John of Daniel & Elizabeth Stoddard born Mar. 7.
 Joseph of Joseph & Rebecca Smith born Mar. 9.
 Jonathan of Samuel & Sarah Snow born Mar. 14.
 John of Richard & Anne Story born Mar. 20.
 Sarah of Samuel & Sarah Tely born Apr. 22.
 Ann of George & Rebecca Thomas born Apr. 30.
 Elizabeth of Matthew & Susanna Taunton born May 2.
 Benjamin of John & Maria Thwing born June 6.
 Joseph of Richd. & Hannah Tout born June 10.
 John of Nathanll & Deborah Thayer born July 2.
 Susanna of Bartho. & Damaris Threeneedle born Aug. 8.
 John of John & Hannah Tapper born July 11.
 John of John & Martha Tuttle born July 5.
 John of Edward & Elizabeth Thwing born July 29.
 Christopher of Samuel & Lydia Turell born Dec. 17.
 Ebenezer of Nathanll & Deborah Thayer born Feb. 1.
 William of Thomas & Mariam Tyler born Mar. 15.
 John of Martha & John Tuttle born July 5.
 Sarah of Edward & Abigail Tuttle born Jan. 5.
 David of David & Mary Vaughan born July 19.
 George of Edward & Sarah Wadkins born Apr. 14.
 Robert of Sampson & Rebecca Waters born May 5.
 Susanna of Thomas & Elizabeth Wagget born May 23.
 Samuel of Samuel & Hannah White born June 7.
 Hannah of Michael & Elizabeth Willis born June 14.
 Edward of Edward & Jane Weeden born July 3.
 John of John & Elizabeth Walley born July 19.
 Experience of Experience & Elizabeth Willis born Aug. 19.
 James of James & Mary Webster born Aug. 27.
 Joseph of Richard & Anna West born Sept. 22.
 John of Henry & Esther Webster born Sept. 28.
 Hephzibah of Robert & Margery Williams born Nov. 1.
 Elizabeth of Samuel & Sarah Walker born Nov. 16.
 William of Francis & Mary Whitman born Nov. 21.
 Elizabeth of Joseph & Lydia Williams born Dec. 9.
 Elizabeth of Benja. & Rachel Williams born Jan. 7.
 Elizabeth of Benja. & Susanna Worthilake born Jan. 2.
 John of John & Mary Wooddee born Jan. 25.
 Nathaniel of Thomas & Abigail Walter born Jan. 30.
 Dorcas of Samuel & Elizabeth Wakefield born Feb. 5.
 Susanna { of John & Richard Weekes born Feb. 22.
 John { of John & Richard Weekes born Feb. 22.
 Elizabeth of John & Eunice Wayte born Feb. 26.
 William of John & Ann Wyllys born Mar. 1.
 Recompence of Timothy & Susanna Wadsworth born Mar. 19.

Joshua Gee & Eliza. Harrise were married by Rev. Joshua Moody Sept. 25.

FIRST CHURCH.

Samuel Atwater
William Grigges

April 1.
April 8.

Priscilla Allin	April 22.
Susannah Langdone	May 13.
Philip Langdone	May 13.
John Langdone	May 13.
James Langdone	May 13.
Samuel Langdone	May 13.
Peirce Fitchlocke	May 20.
Mary Morter	June 3.
Benjamin Twinge	June 10.
Joseph Tonte	June 10.
Joseph Giffards	June 10.
Anna Willis	June 17.
John Man	July 1.
Sarah Hughes	July 8.
John Twing	July 29.
Thomas Fox	Aug. 5.
Mary Clow	Sept. 23.
Joseph West	
Hannah Matthews	Oct. 7.
Samuel Maxwell	Oct. 7.
Hephzibah Williams	Nov. 4.
Lydia Clough	Nov. 4.
Abigaile Davises	Nov. 25.
Joseph Rowliston son of Bosworth yt was now Rowliston.	Dec. 2.
Josiah Prince	Dec. 9.
Mary Bridgham	Dec. 18.

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TOWN.

Joseph of Thomas & Mary Ashley born Apr. 7.
 Joseph of Joseph & Anne Allen born Oct. 22.
 Richard of Thomas & Abigall Adkins born Oct. 12.
 John of William & Hannah Bryant born Mar. 25.
 Sarah of Thomas & Mary Bedell born Apr. 2.
 Mary of Gilbert & Mercy Bant born Apr. 28.
 Elizabeth of John & Charity Bayly born May 1.
 Thomas of Henry & Abial Brightman born May 11.
 Mary of Edward & Mary Bromfield born June 2.
 Richard of John & Sarah Blake born May 23.
 John of Joseph & Rebecca Briscoe born July 2.
 Elizabeth of Thomas & Eliza. Barnerd born Aug. 6.
 Joseph of Abraham & Martha Blish born July 24.
 Mary of Nathaniel & Mary Baker born Sept. 12.
 Mary of Edward & Mary Bricknall born Sept. 15.
 John of Samuel & Hannah Bridg born Oct. 5.
 Esther } of Thomas & Esther Buckley born Oct. 11.
 Elinor } of Thomas & Esther Buckley born Oct. 11.
 Richard } of Richard & Mary Brown born Oct. 13.
 Mary } of Richard & Mary Brown born Oct. 13.
 John of John & Theodora Belcher born Dec. 11.
 Mary of Edward & Mary Bartles born Jan. 1.
 Constantine of Henry & Sarah Bennet born Dec. 25.
 Elizabeth of John & Mary Boyes born Jan. 15.
 Samuel of Thomas & Sarah Baker born Sept. 9.
 Sarah of Richard & Abigail Cheever born Apr. 15.
 Sarah of Francis & Sarah Cole born Apr. 29.
 John of John & Sarah Coney born May 19.
 Deborah of Edward & Sarah Cowel born Sept. 26.
 Samuel of Samuel & Ruth Clough born Sept. 29.
 Mary of John & Anna Cotton born Nov. 5.
 Ezekiel of Ezekiel & Sarah Cleasby born Nov. 25.

Samuel of John & Sarah Coniball born Jan. 16.
 Eliza. of John & Anna Clay born Feb. 28.
 Sarah of Zachar & Sarah Davis born Apr. 19.
 Elizabeth of Lawrence & Elizabeth Drisco born Apr. 18.
 Edward of Edward & Hannah Dissater born June 13.
 Samuel of Jeremiah & Anna Duñer born Apr. 16.
 John of Richard & Mary Drew born July 21.
 Mary of Thomas & Mary Down born July 27.
 Rachel of Charles & Rachel Deale born Sept. 13.
 Anne of Eliezur & Mary Darby born Sept. 1.
 William of Joseph & Ann Dios born Sept. 6.
 John of John & Rachel Draper born Sept. 29.
 Lydia of Samuel & Lydia Dyer born Nov. 17.
 Abigail of Joseph & Abigaile Eustis born Apr. 1.
 Joanna of Lewis & Absiah Elleir born Apr. 26.
 Jonathan of Jona & Mary Evans born July 7.
 Mary of Joseph & Silence Eliot born July 23.
 Eliza. of William & Eliza. Eades born Sept. 24.
 Susanna of Henry & Joanna Elise born Nov. 25.
 Hannah of John & Eliza Eustice born Oct. 9.
 Richard of John & Martha Edwards born Nov. 20.
 William of William & Susanna Ellise born Nov. 27.
 Samuel of Benja. & Mary Emmons born Feb. 14.
 Samuel of John & Dorothy Foy born Mar. 26.
 Joseph of Josiah & Anne Franklin born June 30.
 Lydia of Robert & Eliza. Fethergill born Oct. 6.
 John of John & Mary Fairfield born Oct. 20.
 Rebecca of Joseph & Rebecca Fuller born Nov. 6.
 Charity of Gabril & Catharine Fitchlock born Feb. 9.
 Lydia of Gibson & Rebecca Faur born Jan. 16.
 John of Philip & Hannah P.¹ Finnah born Oct. 1.
 Rebecca of Thomas & Mary Goodridge born Apr. 21.
 Edward of Edward Gouge & Martha Staples born Apr. 25.
 Rebecca of Samuel & Susanna Gray born Jan. 26.
 John of Bastian & Eliza. Gosier born Aug. 4.
 Abigail of Richard & Abigail Gridley born Oct. 21.
 Mary of Aaron & Mary Geaffalls born Oct. 25.
 Sarah of Isaac & Sarah Griffin born Feb. 21.
 James of Joseph & Lydia Griffin born Feb. 16.
 Mercy of John & Martha Goodwin born Feb. 24.
 Peter of Joshua & Eliza. Gee born Dec. 16.
 Ann of William & Elizabeth Hall born Apr. 10.
 John of John & Alice Hurst born Apr. 22.
 Mehetable of Benja. & Mehetable Harwood born Apr. 25.
 Thomas of Thomas & Rebecca Harris born Apr. 29.
 Joseph of Thomas & Annis Hill born May 24.
 Sarah of Thomas & Bridget Hay born May 26.
 Mary of John & Rebecca Hacket born June 26.
 Samuel of Robert & Elizabeth Howard born Apr. 5.
 Edward } of Elizur & Mary Holyoke born June 26.
 Samll } of Elizur & Mary Holyoke born June 26.
 Hannah of John & Eliza. Higgs born Aug. 8.
 Eliza. of Samuel & Abigail Hudson born Aug. 9.
 Joseph of John & Johanna Hunlock born Oct. 18.
 Abigail of James & Lydia Haukins born Oct. 13.
 Hannah of Thomas & Sarah Hill born Oct. 27.
 Mary of Richard & Eliza. Harrise born Nov. 7.
 Elizabeth of Eliakim & Sarah Hutchinson born Nov. 5.
 Ebenr. of John & Patience Harker born Feb. 26.
 Daniel of Hezekiah & Abigail Henchman born Jan. 1.
 Nicholas of Nicholas & Ruhamah Inglesby born Apr. 6.

¹ This seeming initial was written as a query if the name should not begin with Ph., under which the same parents appear in 1692. — W. S. A.

Joseph of Henry & Lydia Ingram born Apr. 30.
 Sarah of William & Mary Jarvis born Mar. 30.
 Isaac of Isaac & Mary Jones born May 28.
 Ruth of John & Ruth Jepson born June 7.
 Mary of David & Priscilla Johnston born May 5.
 Richard of John & Susanna Jacobs born Sept. 15.
 Samson of John & Mary Jarvise born Jan. 6.
 James of John & Sarah Jenkins born Jan. 10.
 Elizabeth of Richard & Sarah Knight born May 8.
 Elizabeth of John & Mehetable Keen born June 7.
 Daniel of Joseph & Ruth Knight born July 4.
 Nathaniel of John & Rachel Kinde born Sept. 1.
 Mary of Andrew & Susanna Knot born Sept. 28.
 Mary of Richard & Susanna Kennet born Oct. 8.
 John of Roger & Ann Kilkup born Nov. 6.
 Eliza. of Thomas & Eliza. Kellon born Dec. 5.
 Luke of Elias & Elizabeth Lipsey born May 15.
 Ephraim of John Langdon born Jan. 25.
 Richard of Richard & Martha Ladd born Sept. 7.
 Abigail of David & Martha Landon born Aug. 26.
 Jonathan of John & Joanna Mills born May 3.
 Samuel of Samuel & Mary Marion born June 7.
 John of John & Ann Marion born June 28.
 Joseph of Joseph & Hannah Milam born June 22.
 Henry of Ebenezer & Rose Messenger born July 8.
 Samuel of John & Sarah Mason born July 31.
 John of John & Lydia Moor born Aug. 27.
 Mary of Willm & Phoebe Manley born Sept. 11.
 Sarah of Willm & Olive Macloughlin born Oct. 29.
 Joseph of Edward & Mary Morse born Nov. 14.
 Sarah of John & Abigail Mulbery born Jan. 2.
 Thomas of Christopher & Mary Monck born Jan. 2.
 George } of Andrew & Ruth Marriner born Jan. 19.
 Andrew } of Andrew & Ruth Marriner born Jan. 19.
 Thomas of Thomas & Dorcas Marshall born Aug. 3.
 Susanna of William & Susanna Milborn born July 11.
 Manassah of Samuel & Ruth Marshall born Jan. 30.
 Susanna of John & Susanna Nichols born Apr. 4.
 David of David & Temperance Norton born Nov. 4.
 Brattle of Nathanll & Elizabeth Oliver born June 1.
 Josiah of Thomas & Martha Oakes born May 3.
 Bethiah of John & Sarah Oliver born Jan. 13.
 Nathaniel of Joseph & Bridget Phillips born Mar. 30.
 Samuel of George & Elizabeth Pordage born Apr. 15.
 Jane of Nathanll & Tabitha Peck born May 11.
 John of Richard & Rachel Procter born June 10.
 Joseph of Robert & Hannah Price born July 4.
 Thomas of Joseph & Bethiah Parsons born Aug. 11.
 John of Benja. & Eliza. Pemberton born Nov. 27.
 George of Thomas & Hannah Pemberton born Nov. 18.
 Nathaniel of Nathaniel & Mary Pulman born Jan. 10.
 Bariah dau. of Samuel & Mary Pearse born Feb. 7.
 John of Daniel & Anna Quinsie born July 21.
 Nathanll of George & Eliza. Robinson born June 22.
 Eliza. of John & Eliza. Richards born June 24.
 Ruth of Nathaniel & Ruth Renalls born Sept. 11.
 Martha of Thomas & Martha Raper born Nov. 18.
 Thankful of Ephraim & Mary Sale born May 18.
 Mary of William & Mary Shortrigs born June 16.
 James of James & Prudence Smith born June 12.
 Joseph of Joseph & Ruth Shaw born May 31.
 William of William & Mary Starling born June 20.
 Martha of Simeon & Mary Stoddard born Dec. 14.
 Abigail of John & Mary Stevens born July 9.

Martha of William & Martha Smallage born Aug. 24.
 Mary of Michael & Mary Shute born Aug. 17.
 William of John & Mary Smith born Sept. 20.
 Thomas of Thomas & Rebecca Smith born Sept. 11.
 Robert of Robert & Abigail Seers born Oct. 7.
 Eliza. of Josiah & Mary Stone born Dec. 22.
 Nathaniel of Nathl & Eliza. Shannon born Dec. 9.
 Sarah of John & Jane Snelling born Feb. 1.
 Benjamin of Benja. & Joanna Stone born Jan. 16.
 John of John & Jane Smith born Jan. 26.
 Richard of Roger & Eliza. Stainer born Mar. 8.
 ———ah } dautrs of Samuel & Susanna Saxton born July 4.
 Elizabeth } of Samuel & Susanna Saxton born July 4.
 Joseph of Joseph & Mary Thaxter born May 7.
 William of Jeremiah & Mercy Tay born June 16.
 Samuel of Samuel & Sarah Tyley born July 19.
 Mary of John & Mary Trow born Aug. 9.
 Anna of Pen & Sarah Townsend born ———.
 Joseph of Samuel & Lydia Turel born Nov. 29.
 Anne of James & Eliza. Townsend born Feb. 26.
 Sarah of John & Sarah Vickars born Apr. 23.
 Isaiah of Samuel & Elizabeth Verry born June 28.
 Samuel of Samuel & Mary Veazie born June 23.
 John of John & Penelope Verein born Sept. 28.
 David of David & Mary Vaughan born Dec. 7.
 Thomas of Thomas & Hannah Verein born Jan. 26.
 James of James & Elizabeth Worth born Apr. 7.
 Elizabeth of John & Elizabeth Welch born June 3.
 Hannah of Thomas & Sarah Wheeler born July 27.
 John of Andrew & Bethiah Wilson born Sept. 1.
 Mary of William & Mary Wilson born Sept. 7.
 Richard of Richard & Phebee Whiteridge born Sept. 26.
 Joseph of Waite & Mary Winthrop born Sept. 10.
 Mary of Joseph & Lydia Williams born Nov. 6.
 Eliza. of John & Eliza. Webb born Dec. 3.
 Ebenr. of Experience & Eliza Willise born Dec. 23.
 Eliza. of Joshua & Sarah Winsor born Dec. 23.
 Eliza. of Thomas & Deborah Walker born Feb. 3.
 Nicholas of Return & Martha Waite born Feb. 6.
 William of Ebenr & Deliverance Weeks born Feb. 20.
 Eliza. of Samuel & Eliza. Worden born Feb. 19.

John Barnard & Hannah Hoksey were married Nov. 21.
 Thomas Buttolph & Abiel Sanders were married by Rev. Samuel Willard
 Dec. 3.
 Andrew Belcher & Hannah Walker were married by Thomas Danforth Esq.
 Feb. 13.
 John Cook & Ruth Greenlief were married by the Rev. Theodate Lawson
 Dec. 16.
 Thomas Davise & Hannah Allen were married by Elisha Cook Esq. Assist.
 Sept. 12.
 Andrew Dolbery & Eliza Condey were married by Willm. Johnson Esq.
 Assist. Dec. 31.
 Richard Draper & Sarah Kilbey were married by the Rev. Theodate Lawson
 Oct. 22.
 Jeremiah Fitch & Martha Messenger were married by Rev. James Allen
 Sept. 5.
 John Foster & Abigail Kellond were married by John Richards Esq. Assist.
 Nov. 28.
 Josiah Franklin & Abiah Foulger were married by the Rev. Sam. Willard
 Nov. 25.
 Thomas Gwin & Johanna Armitage were married by Rev. Saml. Willard
 Nov. 21.

Thomas Linkoln & Mehetable Frost were married by Rev. Joshua Moody Aug. 3.

William Lay & Mary Howen were married by John Richards Esq. Assist. Jan. 11.

John Mico & Mary Brattle were married by Rev. Samuel Willard Aug. 20.

Paul Myham & Eliza Tay were married by Elisha Cook Esq. Assist. Dec. 17.

William Phillips & Deborah Long were married by the Rev. Saml. Willard Nov. 13.

George Rayson & Eliza Dyer were married by Isa. Addington Esq. Assist. May 21.

Thomas Scudder & Sarah Phillips were married by Rev. James Allen Nov. 4.

William Turner & Hannah Jacklin were married by the Rev James Allen Aug. 28.

Andrew Waker & Eliza. Allen were married by the Rev. Theodate Lawson Aug. 8.

Richard Way & Hannah Knight were married by Nath Salstinstall Esq. Assist. Aug. 13.

William Hewes & Eliza. Grafton were married Nov. 25.¹

Mary of John & Mary Bonner died July 28.

Samuel of Thomas & Sarah Baker died Sept. 27.

Esther of Thomas & Esther Buckley died Nov. 2.

Benjamin Briscow died Dec. 19.

Richard of Richard & Mary Brown died Dec. 24.

Mary of John & Martha Clough died June 29.

Eliza. of Will. & Eliza. Condey died Sept. 18.

Eliza. Cushing widow died Nov. 23.

Eliza. Cummins died Nov. 13.

John of Richard & Mary Drew died Aug. 16.

Joseph of Joseph & Abigal Dudson died May 1.

James of John & Eliza. Davise died Sept. 15.

John Dinsdale died Aug. 31.

Edward of Edward & Hannah Disiter died Sept. 14.

Bridget Gwin died Nov. 13.

Mercy of Will. & Hannah Gibson died Dec. 2.

John of John & Eliza. Harrise died Aug. 14.

Abigall wife of Capt. Edward Hutchinson died Aug. 10.

Nathaniel of John & Rachel Kind died Sept. 25.

William Lamb died Jan. 15.

Jacob of John & Margaret Marsh died Aug. 21.

Rachel of John & Lydia Moor died Sept. 8.

Mary of Will. & Phebee Manley died Sept. 22.

Mary of Sam. & Constance Mattocks died Nov. 12.

Thomas Moor died Jan. 5.

John Needham died Jan. 14.

Eliza. of Samuel & Eliza. Paine died Sept. 27.

Lydia Pearse died Nov. 11.

Samuel Ruggles died Dec. 12.

John Shaw died July 23.

Edward Stevens died Oct. 5.

Phillippi widow of Ralph Samis died Jan. 8.

Jeremiah of Hugh & Mary Samson died Feb. 12.

Samuel of John & Sarah Tucker died May 5.

Sarah of John & Sarah Tucker died July 31.

John of John & Hannah Tapper died Oct. 15.

Joseph of Andrew & Dorothy Wood died Dec. 3.

Warner Wisendonk died Sept. 14.

Mary of William & Mary Wilson died Oct. 16.

Sarah Wheatley died Nov. 26.

Thomas Watkins died Dec. 16.

¹ This marriage took place before 1690; but the fourth figure of the date is illegible.—
W. S. A.

Eliza. dau. of Thomas Watkins died Dec. 26.¹
 Eliza. dau. of Thomas Watkins died Jan. 8.¹
 Edward Wright died Jan. 21.

FIRST CHURCH.

Sarah Cotte	Jan. 13.
John Combs	Jan. 13.
Mary Loveringe	Jan. 13.
Moses Peirce	Jan. 27.
William Peirce	Jan. 27.
Nathaniel Peirce	Jan. 27.
Mary Peirce	Jan. 27.
Sarah Peirce	Jan. 27.
John Woody	Jan. 27.
Mercy Gibson	Feb. 17.
Hannah Ingram a woman	Feb. 25.
Elizabeth Coggsall	March 3.
Sarah Coggsall	March 3.
Margaret Coggsall	March 3.
Elizabeth Wayte	March 3.
Rachell Ingram	March 3.
Elizabeth Jackson	March 17.
Ebenezer Gibson	March 10.
Hannah Cogshall	March 10.
Joseph Ingram	May 5.
Thankful Sale	May 19.
Samuel Mattocks	May 19.
Richard Blake	May 26.
Prudence of Bosoon Allin	} twins Aug. Aug. Sept.
Ann of Bosoon Allin	
Samuel Moore	
John Bridge	Oct. 6.
Nathaniel Fisher	Oct. 6.
Esther Bulkley	Oct. 13.
Elenor Bulkley	Oct. 13.
Isaac Griggs	Oct. 13.
Abigail Hawkins	Oct. 20.
Mary Giffords	Oct. 27.
Anne of Pen Townsend	Nov. 10.
Mary Harris of Brantry	Nov. 10.
Susannah Willis	Dec. 1.
Ezekiel Clesby	Dec. 1.
Hannah Warner alias Mortar	Dec. 15.
Hannah Winsor	Dec. 29.
Ebenezer Willis	Dec. 29.

1690.

TOWN.

Esther of Edward & Mary Ashley born Mar. 25.
 Mary of Abrm : & Abigall Adams born June 11.
 John of John & Eliza. Alden born Sept. 20.
 Mary of William & Mary Arnold born Nov. 17.
 Anna of Thomas & Mary Ashley born Jan. 8.
 Esther of Lewise & Abigal Allaire born Jan. 27.
 Hannah of John & Sarah Alger born Dec. 10.
 Jabish of John & Eliza. Allen born Jan. 6.
 George of George & Mary Burrel born Mar. 19.
 Martha of George & Mercy Bearstow born Mar. 6.

¹ One of these was probably the wife, but the record is as printed above. — W. S. A.

Samuel of Peter & Eliza Butler born Mar. 26.
 John of Elisha & Dorothy Bennet born Apr. 4.
 William of Jonathn & Frances Bill born Apr. 7.
 Samuel of William & Eliza. Burt born May 16.
 John of John & Susana Baster born June 13.
 James of Samuel & Ann Beighton born Mar. 28.
 Sarah of Peter & Sarah Barbour born June 27.
 Hannah of John & Susana Butler born Aug. 27.
 Thomas of Edward & Mary Bromfield born Sept. 2.
 Henry of John & Charity Bayley born Sept. 8.
 Sarah of George & Sarah Briggs born Oct. 30.
 Katherine of Richard & Katherine Barnerd born Nov. 8.
 Peter of William & Joanna Bolderson born Dec. 20.
 Deliverance of William & Eliza. Brown born June 19.
 Sarah of George & Sarah Briggs born Oct. 13.
 Deborah of Samuel & Martha Burrel born Jan. 3.
 Joseph of Thomas & Sarah Baker born Jan. 20.
 Sarah of John & Sarah Blake born Dec. 17.
 Phillip of Phillip & Margaret Barger born Feb. 10.
 James of James & Rachel Barry born Feb. 12.
 Mary of Thomas & Sarah Bannister born July 10.
 Jacob of John & Mercy Bucker born Jan. 13.
 Beatrix of John & Sarah Bourland born Dec. 31.
 Thomas of Joseph & Abigail Belknap born Jan. 24.
 William of Francis & Frances Buckitt born Jan. 20.
 Mary of John & Mary Cole born Mar. 4.
 James of James & Mary Cornish born Apr. 9.
 Lydia of Samuel & Mary Checkley born Mar. 31.
 Deborah of Thomas & Deborah Cushing born Apr. 15.
 Michael of Edward & Sarah Collings born May 2.
 Rachel of John & Eliza. Cranmer born Apr. 18.
 James of Mongo & Mary Crafford born Apr. 26.
 Sarah } of William & Susanna Crutchfeeld born June 18.
 John } of William & Susanna Crutchfeeld born June 18.
 Eliza. of Andrew and Sarah Cuninghame born June 17.
 Abiah of Ellis & Mary Callender born June 22.
 Abigail of Thomas & Sarah Cheever born May 20.
 Mary of Matthew & Naomie Collings born July 27.
 Mary of Jonathn & Joanna Cockcroft born Sept. 17.
 Aaron } of Job & Joanna Chamberlin born Jan 7.
 Moses } of Job & Joanna Chamberlin born Jan 7.
 David of Caleb & Sarah Chapen born July 2.
 Jonas of Jonas & Mary Clay born Dec. 29.
 Edward of Edward & Sarah Cruft born Dec. 30.
 Ruth of Samuel & Ruth Clough born Jan. 26.
 John of John & Eliza. Clark born Feb. 18.
 Jonas of Timothy & Sarah Clark born Sept. 8.
 John of Samuel & Eliza. Checkley born Dec. 2.
 Matthew of Duncan & Susanna Campbell born Feb. 14.
 Mary of Robert & Rebecca Cumbeys born Dec. 15.
 Thomas of Thoms & Hannah Davise born Aug. 13.
 Sarah of Richard & Sarah Draper born Aug. 3.
 Mary of William & Mary Davise born Sept. 6.
 Sarah of Charles & Sarah Demerey born Dec. 4.
 Samson of Samson & Sarah Dewer born Jan. 28.
 Christian dau. of John & Eliza. Egbeer born June 30.
 Elizabeth of William & Eliza. Endecot born July 26.
 Joseph of Joseph & Abigail Eustice born Jan. 29.
 Abigail of John & Eliza. Eustice born Feb. 21.
 Benjamin of Willm & Sarah Eustice born Feb. 20.
 Hannah of Thomas & Hannah Fairwether born June 30.
 Elizabeth of Gyles & Eliza. Fifield born June 13.
 John of Josiah & Abia Franklin born Dec. 7.
 John of David & Dorothy Farnum born Dec. 12.

Ebenezer of Hugh & Elenor Floyd born Feb. 21.
 James of James & Johanna Grant born Mar. 31.
 Abigail of Samuel & Mary Greenwood born Apr. 13.
 Lydia of Isaac & Mary Goose born May 18.
 Daniel of Christopher & Abigail Goff born May 27.
 John of Jotham & Margaret Grover, born July 2.
 Abigail of Luke & Abigail Greenough born Sept. 17.
 Eliza. of Bastian & Eliza. Gosier born Sept.
 Solomon of John & Hannah Green born Nov. 10.
 Sarah of Obediah & Eliza. Gill born Jan. 3.
 Eliza. of Joshua & Eliza. Gee born Nov. 22.
 Samuel of Samll & Eliza. Greenwood born Aug. 15.
 Sarah of Edward & Lydia Hillard born May 6.
 Sarah of William & Anne Hollowel born June 7.
 Eliza. of Thomas & Bridget Hayes born July 25.
 Richard of John & Alice Hurst born Oct. 4.
 Mary of Thomas & Mary Hunt born Oct. 11.
 Mehetable of Thomas & Rebecca Harrise born Feb. 8.
 David of David & Eliza. Jefferyes born June 15.
 Mary of David & Priscilla Johnson born June 30.
 William of William & Sarah Johnson born Aug. 18.
 Experience of Roger & Eliza. Judd born Dec. 16.
 James of Matthew & Susanna Jones born Dec. 19.
 John of John & Mary Jenkins born June 4.
 Ruth of John & Ruth Jepson born June 28.
 Mary of Philip & Mary Langdon born Mar. 24.
 James of James & Ann Lablond born May 31.
 James of James & Anna Lablond born Apr. 17.
 Zachary of Zachary & Eliza. Long born June 13.
 Samuel of Samuel & Mary Landman born June 29.
 Mehitable of Thomas & Mehitable Lincoln born Jan. 25.
 Susanna of William & Mary Lay born Aug. 6.
 Robert of Francis & Martha Marshall born Sept. 4.
 Sarah of George & Barbary Mitchell born Oct. 19.
 Stephen of James & Eliza. Mears born May 15.
 John of John & Sarah Meryfeeld born Dec. 12.
 Mary of Robert & Ann More born Feb. 4.
 John } of John & Joanna Mills born Feb. 22.
 James } of John & Joanna Mills born Feb. 22.
 Isaac of George & Hannah Mathews born Dec. 1.
 John of Stephen & Mercy Minot born Dec. 23.
 William of Florence & Eliza. Maccarty born Feb. 3.
 Zacheus of John & Margaret Marsh born Feb. 10.
 Catharine of Samuel & Mary Maryon born Sept. 15.
 John of John & Lydia Moor born Feb. 4.
 John of Thomas & Dorcas Marshall born Dec. 27.
 Robert of Francis & Martha Marshal born Sept. 4.
 Thomas of Thomas & Eliza. Mesenger born Jan. 18.
 Thomas of Regnal & Priscilla Odell born Apr. 8.
 Anna of Joseph & Mary Penewel born Mar. 8.
 Ruth of Thomas & Ruth Prince born Mar. 6.
 Bryant of Bryant & Hannah Parrot born Mar. 19.
 Samuel of William & Eliza. Porter born May 18.
 John of Edward & Eliza. Pell born July 14.
 Hannah of Thomas & Hannah Phillips born Sept. 7.
 Eliza. of William & Eliza. Parkman born Sept. 12.
 William of William & Deborah Phillips born Nov. 17.
 William of William & Margaret Pollard born Apr. 2.
 Rebecca of Richard & Sarah Rycroft born Mar. 2.
 Joseph of John & Charity Ricks born Apr. 15.
 Thomas of Samuel & Ann Ruck born June 23.
 Alice of Philip & Alice Richards born Aug 10.
 Mary of John & Mercy Rowleston born Sept. 29.
 George of George & Eliza. Raylin born Feb. 11.

Joseph of Joseph & Mary Russell born Nov. 21.
 Mary of John & Experience Roberts born Nov. 7.
 Joseph of Joseph & Sarah Robinson born Sept. 15.
 Eliza. of John & Mary Roberts born Jan. 5.
 Nathanll of George & Eliza. Robinson born Feb. 7.
 Richard of Roger & Eliz. Stainer born Mar. 8.
 Judith of Samuel & Hannah Sewall born Aug. 13.
 Hugh of Hugh & Mary Samson born Sept. 13.
 Mary of Alexander & Rebecca Seers born Sept. 27.
 Jane of Philip & Margaret Squire born Jan. 29.
 John of John & Hanniball Salsbery born Jan. 5.
 Thomas of Bryant & Abigail Smith born Nov. 13.
 Thomas of John & Ann Simons born Feb. 4.
 Abigail of John & Abigail Turner born June 29.
 Thomas of John & Sarah Tenny born June 15.
 William of Willm & Mary Thwing born July 8.
 Dorothy of George & Rebecca Thomas born Dec. 20.
 Anne of Pen & Sarah Townsend born Nov. 10.
 Joseph of Richard & Hannah Tout born Dec. 12.
 Abigail of James & Rebecca Taylor born Aug. 2.
 Nathaniel of Edward & Abigail Tuttle born Nov. 20.
 Phebee of Edward & Abigail Tuttle born Aug. 12.
 John of John & Sarah Vicars born Mar. 12.
 Mary of Andrew & Eliza. Veech born Aug. 19.
 William of Edward & Sarah Watkins born Apr. 6.
 Susanna of John & Susanna Wilkins born Apr. 9.
 Abigail of Edward & Eliza. Wilton born May 23.
 Eliner of James & Esther White born Sept. —.
 Sarah of Francis & Mary Whitman born Nov. 2.
 Mary of William & Mary Wilson born Nov. 4.
 Richard of Richard & Phebee Whiteridge born Jan. 29.
 Eliza. of James & Mary Webster born Aug. 14.
 Susanna of Samuel & Sarah Walker born Jan. 28.
 Rachel of Cornelius & Faith Waldo born Apr. 20.
 Mary of Thomas & Tryphana Woodward born May 16.

John Atwood & Mary Smith were married by James Russell Esq. Assist.
 Oct. 27.
 Joseph Belknap & Abigail Buttolph were married by Isa. Addington Esq.
 Assist. Apr. 1.
 Richard Barnerd & Katherine Wilson were married by Rev. Charles Morston
 Apr. 3.
 Alex. Bulman & Margaret Taylor were married by Rev. John Bayley Dec. 22.
 Samuel Bridg & Christian Peirse were married by Isa. Addington Esq. Assist.
 Dec. 3.
 Isaac Biscan & Ann Brooks were married by Saml. Sewall Esq. Assist.
 Nov. 20.
 George Clark & Ann Lutterell were married by Saml. Sewall Esq. Assist.
 Feb. 3.
 John Darbey & Rachel Codner were married by Saml. Sewall Esq. Assist.
 Oct. 9.
 Thomas Fox & Esther Jarvise were married by Simon Bradstreet Esq. Gov.
 Mar. 21.
 Theophelus Frarey & Mary Greenwood were married by Saml. Sewall Esq
 Assist. June 12.
 William Gayer & Maria Gaurd were married by William Johnson Esq. Assist.
 July 4.
 John Grantham & Martha Bant were married by Saml. Sewall Esq. Assist.
 Dec. 8.
 John Hooper & Mary Litchfeeld were married by Mr. Emblim Baptist Minis.
 Jan. 27.
 Thomas Jackson & Priscilla Grafton were married by Isa. Addington Esq.
 Assist. Oct. 15.

Theodat Lawson & Deborah Allen were married by Isa. Addington Esq. Assist. May 6.
 Israel Lyon & Hannah Hewen were married by Saml. Sewall Esq. Assist. Mar. 25.
 Thomas Moorhouse & Mary Hill were married by Saml. Sewall Esq. Assist. Apr. 3.
 John Mayn & Mary Peacock were married July 24.
 Nathaniel Orrise & Mary Ivett were married by Saml. Sewall Esq. Assist. Sept. 11.
 William Pasco & Ruth Hetchbone were married by Isa. Addington Esq. Assist. Oct. 20.
 John Pim & Mary Orchard were married by Isa. Addington Esq. Assist. Feb. 5.
 William Shute & Martha Budd were married by Saml. Sewall Esq. Assist. May 19.
 Thomas Savage & Mehitabel Harwood were married by Thos. Danforth Esq. Dep. Gov. Feb. 5.
 David Stevens & Eliza Webster were married by the Parson of the Church of England Jan. 29.
 John Scolly & Lydia Grover were married by Benja. Swaine Dec. 22.
 Joseph Townsend & Elizabeth Berry were married by Jeremiah Swain Esq. Assist. May 22.
 Peter Virgule & Sarah Johnson were married by Isa. Addington Esq. Assist. Jan. 21.
 William Warren & Abiel Rogers were married by Rev. Thomas Cheever Nov. 1.
 Robert Watson & Susanna Prior were married by Saml. Sewall Esq. Assist. Feb. 13.

Joseph of Thomas & Mary Ashley dyed March 12th.
 Nathaniel Adams dyed March 30.
 Mary of Edward & Mary Ashley dyed July 11.
 Joseph of Joseph & Ann Allen dyed Aug. 12.
 Samuel of John & Sarah Alger dyed Janry. 24.
 Samuel of Peter & Eliza. Butler dyed May 18.
 John of Joseph & Rebecca Briscow dyed July 2.
 Elinor of Thoms. & Esther Buckley dyed July 8.
 Hannah wife of Wm. Bryant dyd. July 14.
 Ebenr of Samll & Martha Burrel dyed July 21.
 Hanna of Josiah & Mary Baker dyed Aug. 1.
 Katherine of Richard & Eliza. Bason dyed July 21.
 John of John & Sarah Blake dyed Aug. 7.
 Sarah dau. of James Burges dyed Aug. 25.
 Hanna wife of Samll Bridg dyd. June 11.
 Hanna of Samuel & Hannah Bridg dyed July 21.
 Wilim. of Samuel & Hannah Bridg dyed Aug. 16.
 John of Samll & Hannah Bridg dyed Aug. 29.
 James Burges dyed Novr. 27.
 Benjamin of James & Sarah Burges dyed Febry. 6.
 Hannah of Thomas & Sarah Bannister dyed Aug.
 Thomas Buttolph dyed Novr. 30.
 Mary of James & Sarah Balston dyed Janry 2.
 Eliza. Bridgham Widdo dyed Janry. 19.
 Beatrix of John & Sarah Borland dyed Janry. 11.
 Eliza. wife of George Clark dyed March 18.
 Ann of Thoms & Jane Clark dyed Aprill 23.
 Mary of Willm & Mary Clap dyed June 18.
 Henry of Richd & Anna Christophers dyed July 15.
 Lydia of Richd & Anna Christophers dyed July 20.
 James of John & Sarah Coney dyed July 15.
 John Cox dyed July 3.
 John of John & Mary Cole dyed Septr. 25.
 Thomas of Thoms & Ann Cook dyed Octbr.
 Mrs Eliza Clark dyed Janry. 10.

Moses of Job & Joanna Chamberlin dyd. Febr'y. 5.
Aaron of Job & Joanna Chamberlin dyd Febr'y. 15.
Capt. Roger Clap dyed Febr'y 2.
James Cook dyed Decr 15.
David Cummins dyd Decr 12.
Mr John Clark dyed Decr 17.
John Coney Senr dyed Decr 24.
Mary wife of Benja Dyer dyed March 15.
Sarah Darbey dyed June 15.
Anne of Eliezur & Mary Darbey dyed July 3.
Samuel Dwight dyed July 5.
Roger Dubbleday dyed Novr. 22.
Joseph of Joseph & Abigall Eustice dyed Janry 29.
Mary of Benja & Mary Emmons dyed June 23.
Mary wife of Benja Emmons dyed Septr 12.
Samuel of Henry & Mary Emmons dyed July 27.
Lydia of Gibson & Rebecca Faur dyed July 22.
Joseph Foard dyed Novr 2.
Eliza of Gyles & Eliza. Fyfield dyed Septr 2.
John Fairfield dyed Janry 23.
Prudence Frary widdo dyed Febr'y 24.
Abigall of Christopher & Abigall Goff dyed March 14.
Sarah Grant dyed March 25.
Sarah wife of Joseph Greenlief dyed June 4.
Sarah wife of Isaac Griffin dyed July 10.
William of John & Hannah Greenlief dyed Aug. 9.
Abigall of Richd & Abigall Gridley dyed Aug. 26.
Josiah Grice dyed Janry 2.
Mary of Thomas & Mary Hunt dyed Aprill 11.
Thomas Hobbs dyed June 18.
Mary Helgeson daur of Mary Small dyed Octobr 21.
Nicholas Hale dyed Decr 14.
Thomas Hitt dyed Decr 6.
Benjamin of Joseph & Mabel Hill dyed July 19.
John Hurd Senr dyed Septr 23.
Anna Jennings dyed June 4.
William of Wm. & Sarah Johnson dyed Septr 9.
James of Matthew & Susana Jones dyed Janry 13.
Francis Johnson dyd Febr'y 3.
William King dyed May 1.
William Kent dyed June 9.
Theophilus of Samll & Meehitabel Lillie dyed May 31.
Henry Lane dyed June 4.
John of Thoms & Mary Lake dyed June 27.
Luke of Elias & Eliza. Lipsey dyed Septr 16.
Mary of Samll & Martha Landman dyed Octor 10.
Hanna Harden daur of Joseph & Mary Long dyed Janry 7.
James Meryfeeld dyed July 3.
Samuel Marshall dyed July 7.
Sarah wife of mr. Samll Marshall of Barnst dyed July 22.
Sarah daur of Samuell Marshall dyed Aug. 2.
Sarah of John & Sarah Morrise dyed Septr 22.
Thomas Madson dyed Decr 29.
William Monck dyed Aug. 2.
Lucey Monck dyed Septr 21.
John of John and Anna Maryon dyed Aug. 15.
Experience Milles dyed Janry 26.
Daniel of Danll & Susana Morey dyed June 7.
William Needham Senr dyed Decr 30.
Samuel of John & Hannah Orrise dyed June 9.
Samuel Peacock dyed March 30.
Ebenr Plumb dyed July 26.
Ruth of Thomas & Ruth Prince dyed Sept. 12.
John of Benja. & Eliza. Pemberton dyed Octor 4.

Hannah wife of Thomas Phillips dyed Octor 13.
 Moses Payn Senr dyed Dece 15.
 William Pollard junr dyed Janry 24.
 Joseph of William & Ann Pollard dyed Dece 30.
 Joseph of Joseph & Mercy Rowleston dyed July 21.
 Sarah of John & Experience Roberts dyed Sepr 9.
 Nathanll of George & Eliza. Robinson dyed Dece. 16.
 John Ragland dyed Nov. 28.
 Peter of Samll & Margaret Ruck dyed Dece 9.
 Michael of Willm & Eliza. Robbins dyed Dece 3.
 Margaret wife of Samll Ruck dyed Janry 1.
 Abiather of Samll & Ann Scarlet dyed March 10.
 Bethia of Rowland & Ann Storey dyed June 8.
 Henry Stevens dyed June 11.
 Abigall of Robt & Abigall Seers dyed July 3.
 Henry of Henry & Purchase Spry dyed Aug. 6.
 Judeth of Samll Sewall Esqr. & Hannah his wife dyed Aug. 13.
 Mary Smith dyed July 11.
 William of Wm. & Mary Smith dyed Sepr 26.
 Thoms Skinner Bakr dyed Dece 28.
 Samll of Joseph & Hannah Souther dyed Febry 21.
 Mr. Ephram Sale dyed Dece 2.
 Robert of Thoms & Temperence Smith dyed Dece 15.
 James Thomas a strangr dyed May 29.
 Mary of James & Eliza. Townsend dyed Aug. 5.
 Ann of James & Eliza. Townsend dyed Aug. 18.
 Jeremiah of Samuel & Abigall Townsend dyed Sepr 6.
 Elizabeth Tille widdo dyed Novr 26.
 Samuel Vezey dyed Dece.
 John of John & Sarah Vickers dyed March 22.
 Francis wife of Samll Ward dyed June 10.
 Mrs. Mary Winthrop wife of Waite Winthrop Esqr. dyed June 14.
 Sarah of John & Eliza. Walley dyed June 29.
 Nicholas of Return & Martha Waite dyed July 19.
 Henry of Isaac & Susana White dyed July 15.
 Sarah of Isaac & Susana White dyed Aug. 15.
 Eliza White Widdo. dyed Dece 23.
 Sarah of Barthll & Amy Whitwell dyed Janry 11.
 Robert of Robt & Margery Williams dyed Sepr 7.

FIRST CHURCH.

Daniel Hincksman	Jan. 5.
Sarah Courser	Jan. 5.
John Courser	Jan. 5.
Ebenezer Thornton	Jan. 12.
Sarah Burgesse	Jan. 12.
Christian Holdenour	Jan. 26.
Jerusha Grosse	Feb. 9.
Beriah Peirce	Feb. 9.
William Harrison	Feb. 9.
John Yellings	Feb. 9.
David Yellings	Feb. 9.
Elizabeth Yellings	Feb. 9.
Charitie of sister Fitchlocke	Feb. 16.
Elizabeth Worden	Feb. 23.
Anna Townsend	March 2.
John Proctor	March 9.
Rebecca Ricott	March 16.
Esther Ashley	March 30.
Mary Landale	March 30.
Sarah Reynolds	May 11.
Ruth Reynolds	May 11.

Thomas Tenny
 Sarah Browne
 Samuel Atwater
 Mary Rolleston
 Hannah Gibson
 Mary Arnold
 Judith Ford
 Deliverance Browne
 Isaac Matthews
 Elizabeth Gee
 Sarah Blake

June 15.
 Aug. 31.
 Sept. 21.
 Oct. 5.
 Nov. 2.
 Nov. 23.
 Dec. 7.
 Dec. 7.
 Dec. 7.
 Dec. 28.
 Dec. 28.

1691.

TOWN.

James of Benja. & Mary Alford born July 19.
 Mary of Joseph & Anne Allen born July 28.
 Samuel of Abrm. & Abigall Adams born Feby 11.
 Joseph of William & Phillippi Arnall born Oct. 2.
 Mathew of James & Elizabeth Adlington born Jan. 6.
 Abigall of John & Hannah Adams born Oct. 6.
 Josiah of Jonathan & Mary Adams born Nov. 29.
 Mary of John & Eliza. Alden born Dec. 15.
 Elizabeth of John & Sarah Alger born Feb. 4.
 Mary of James & Eliza. Burges born Mar. 13.
 Elizabeth of Joseph & Hannah Billing born July 14.
 Eliza. of Peter & Eliza. Butler born May 21.
 Margaret of Jonathan & Susana Balston born Nov. 17.
 Samuel of William & Mary Brown born Dec. 3.
 William of Phillip & Sarah Bass born Mar. 29.
 Hannah of Nathanll & Mary Baker born Apr. 18.
 Hannah of John & Mary Boyes born May 18.
 Henry of Henry & Abiel Brightman born May 23.
 Bartholl. of Daniel & Sarah Ballard born May 6.
 Eliza of William & Sarah Burrage born June 10.
 Eliza of William & Mary Barnsdale born Aug. 20.
 Josiah of Josiah & Mary Baker born Aug. 20.
 Elizabeth of George & Mary Burrel born Sept. 25.
 Nathaniel of Nathanll & Rebecca Balston born Sept. 6.
 Sarah of William & Hannah Billin born Oct. 31.
 John of Richard & Eliza Barson born Dec. 30.
 John of John & Charity Balie born Feb. 24.
 Mary of Edward & Mary Bartles born May 1.
 Elizabeth of Joseph & Rebecca Briscoe born June 24.
 Peter of James & Temperence Barnes born Aug. 21.
 Lydia of John & Sarah Balston born Aug. 25.
 Edward of Jarvise & Martha Ballard born July 26.
 Benjamin of Samuel & Hannah Bickner born Nov. 22.
 Eliza. of Thomas & Mary Beedle born Dec. 4.
 Hannah of Samuel & Christian Bridg born Nov. 29.
 Abigal of Joseph & Abigal Belknap born Feb. 29.
 Samuel of William & Mary Brown born Apr. 24.
 Abigall of Thomas & Sarah Cheever born Mar. 20.
 Sarah of John & Hannah Cerlile born Mar. 8.
 Eliza. of Thomas & Deborah Cushing born Nov. 4.
 Sarah of John & Sarah Coney born May 9.
 Daniel of Robert & Mary Calef born Decr. 27.
 Richard of John & Ruth Cook born Jan. 7.
 Mary of John & Martha Clough born Apr. 15.
 Elizabeth of John & Martha Clough born Apr. 15.
 Thomas of Thomas & Ann Cook born July 27.
 Sarah of Timothy & Sarah Clark born Oct. 18.
 Elizabeth of James & Mary Cornish born Nov. 30.

Mary of Richard & Mary Cheever born Jan. 2.
 Mary of John & Sarah Clark born Feb. 12.
 Jonathan of Jonathn & Hannah Dawes born Apr. 11.
 Thomas of Thomas & Hannah Davise born Oct. 24.
 Thomas of Henry & Abigail Dawson born Nov. 25.
 Mary of Peter & Susanna Devaulx born Mar. 9.
 Ann of Samuel & Ann L.¹ Drew born Apr. 26.
 Elizabeth of William & Susanna Dennise born Oct. 16.
 Rachel of John & Rachel Draper born Novr. 9.
 Mary of Charles & Sarah Demery born Feb. 16.
 Samuel of Zachry & Sarah Davise born Oct. 15.
 Eliza of Simon & Eliza. Eyre born Oct. 30.
 Savil of Thomas & Ann Eyre born Dec. 13.
 Nathanll of John & Mary Earl born Dec. 20.
 Mary of Joseph & Eliza. Eldridge born Mar. 25.
 Benjamen of John & Mary Endecot born June 27.
 Sarah of John & Hannah Edwards born Nov. 30.
 John of John & Elizabeth Eustis born Dec. 20.
 John of John & Eliza. Egbeer born Dec. 9.
 Eliza. of Jonathan & Martha Farnum born Oct. 13.
 Joseph of Joseph & Hannah Grant born June 22.
 David of William & Hannah Gibson born Nov. 20.
 Hannah of John & Hannah Goff born July 24.
 John of Samuel & Bethiah Goodenhous born Oct. 3.
 Martha of David & Martha Gwin born Oct. 15.
 Lydia of Richard & Abigail Gridley born Dec. 21.
 Mercy of James & Lydia Hawkins born July 20.
 Joseph of William & Mary Hough born July 11.
 William of William & Eliza. Hewes born June 27.
 Hephseba of John & Patience Harker born June 27.
 Isaac of John & Eliza. Hurd born Dec. 22.
 Thankful of John & Experience Howard born Feb. 17.
 Abraham of Abram & Eliza. Harrison born Feb. 29.
 Samuel of Hezekiah & Abigail Henschman born Feb. 5.
 Mary of Henry & Mary Hill born Jan. 23.
 Eliza. of Henry & Lydia Ingram born Sept. 4.
 John of Isaac & — Jones born Oct. 24.
 Thomas of Thomas & Priscilla Jackson born July 18.
 Eliza. of David & Eliza. Jefferyes born Feb. 12.
 Susanna of Andrew & Susanna Knot born Nov. 2.
 John of William & Jane Keen born Apr. 15.
 John of John & Lydia Kelton born Aug. 17.
 Susanna of Moses & Margaret Kenny born Feb. 13.
 James of James & Anna Lablond born June —.
 Benjamen of Thoms & Mercy Leasonbee born Aug. 27.
 Mary of Richard & Martha Ladd born Nov. 2.
 Benjamen of Joshua & Mary Lee born Feb. 18.
 Abraham of Isack & Mary Lewis born June 9.
 John of John & Margaret Mila born Mar. 3.
 Mark of Joseph & Hannah Maylim born Mar. 23.
 Edmund of Edmund & Eliza. Mountfort born May 14.
 John of John & Eliza. Mullegan born Dec. 27.
 Eliza. of William & Olive Maccloughlin born Sept. 10.
 Sarah of Paul & Eliza. Millar born Feb. 21.
 Eliza. of Samll & Ann Mattocke born Sept. 20.
 Joseph & } of Alexr. & Dorcas Millar born Sept. 15.
 Benjamen } of Alexr. & Dorcas Millar born Sept. 15.
 Sarah of John & Sarah Marshall born Sept. 12.
 Jonathan of John & Sarah Mason born Jan. 4.
 Eliazur of Christopher & Mary Monck born Jan. 30.
 Israel of John & Susanna Morey born July 3.
 Eliza. of John & Sarah Morrise born July 20.

¹ This was probably not intended for an initial, though it so appears. — W. S. A.

Benjamen of John & Abigail Mulbery born Nov. 21.
 Mercy of Archibald & Eliza. Morrise born Jan. 7.
 Christian of William & Susanna Milborn born Oct. 31.
 Elias of Eliza & Susanna Nean born Apr. 2.
 William of David & Temperence Norton born Dec. 14.
 Mary of Peter & Rebecca Noseter born June 23.
 Thos } of David & Temperance Norton born July 31.
 John } of David & Temperance Norton born July 31.
 Mary of Richard & Rachel Proctor born May 21.
 Judeth of George & Eliza. Pordage born Sept. 16.
 Eliza. of Benjamin & Eliza. Pemberton born Nov. 12.
 Rebecca of Job & Rebecca Prince born Nov. 21.
 Joseph of Thomas & Eliza. Person born Feb. 16.
 David } of William & Eliza. Porter born Nov. 25.
 John } of William & Eliza. Porter born Nov. 25.
 Thomas of Thomas & Eliza. Pike born Dec. 15.
 Grace of William & Mary Painter born Dec. 18.
 John of John & Eliza. Pearse born Dec. 4.
 Abigail of Robert & Hannah Price born Nov. 19.
 Joseph of Joseph & Eliza. Rogers born Oct. 2.
 Mercy of Thomas & Martha Raper born Oct. 23.
 Mary of Nathanll & Ruth Renalls born Aug. 21.
 Mary of Caleb & Mary Ray born Aug. 28.
 David of David & Hannah Ransford born Oct. 20.
 John of John & Mary Robinson born Sept. 2.
 Ann of Rowland & Ann Storey born Mar. 14.
 Mary of Gregory & Jane Sugers born Mar. 17.
 Purchase of Henry and Purchase Spry born Mar. 14.
 Mary of Francis & Mary Smith born Mar. 19.
 John of John & Mary Sunderland born Apr. 2.
 Abigail of William & Martha Shute born July 31.
 John of Thomas & Rebecca Smith born Oct. 20.
 Mary of Samuel & Hannah Sewall born Oct. 28.
 Elizabeth of Edward & Rebecca Shippen born Oct. 20.
 William of Robert & Eliza. Smith born Jan. 22.
 Lydia of John & Lydia Scolly born June 6.
 Deborah of Robert & Ann Shelston born Oct. 14.
 John of John & Jane Snelling born Oct. 21.
 Mary of John & Jane Smith born Nov. 28.
 David of John & Mary Stevens born Jan. 22.
 Hannah of Michael & Mary Shute born Aug. 31.
 Joseph of Joseph & Hannah Simson born July 30.
 Mary of David & Eliza. Stephens born Oct. 16.
 Thomas of Samuel & Sarah Tyley born Mar. 9.
 Mary of Joseph & Eliza. Townsend born Feb. —.
 Isabella of William & Isabella Tyly born May 23.
 Deborah of Nathanll & Deborah Thayer born Oct. 14.
 John of Isaac & Sarah Taylor born Jan. 16.
 Mercy of William & Hannah Turner born Feb. 19.
 Samuel of John & Martha Tuttle born Mar. 20.
 Samuel of Valentine & Susanna Use born Sept. 14.
 Mary of John & Sarah Vicars born Mar. 4.
 Hannah of Thomas & Hannah Verein born Sept. 17.
 Mary of Thomas & Sarah Webb born June 4.
 Mary of William & Abiel Warren born Sept. 24.
 Michael of Samuel & Hannah White born Nov. 11.
 Thomas of Return & Martha Waite born Dec. 14.
 David of Andrew & Bethiah Wilson born Dec. 25.
 Francis of Francis & Mary Whitman born Jan. 14.
 Ann of James & Eliza. Worth born Oct. 16.
 Robert of Robert & Margery Williams born Apr. 3.
 John of John & Eunice Waite born Sept. 13.
 Samuel of Richard & Mary White born Dec. 15.
 Moses of Thomas & Rebecca Walker born Dec. 26.

Rebecca of James & Mary Webster born Dec. 3.
 Lydia of Experience & Eliza. Willise born Feb. 21.
 Judeth of Cornelius & Faith Waldo born Jan. 25.
 Rose of Robert & Luce Ward (Negros) born Oct. 26.

William Alden & Mary Drewrey were married by Samuel Sewall Esq. Assist.
 May 21.
 Nathaniel Alden & Hepsiba Mountjoy were married by Samuel Sewall Esq.
 Assist. Oct. 1.
 William Adams & Sarah Nostock were married by Mr. Emblim Bapt. mins.
 Dec. 10.
 George Beard & Abiel Buttolph were married by Samuel Sewall Esq. Assist.
 Dec. 17.
 Thomas Clark & Rebecca Smith were married by Isa. Addington Esq. Assist.
 Apr. 30.
 John Clark & Sarah Shrimpton were married by Isa. Addington Esq. Assist.
 Apr. 30.
 Richard Cobb & Esther Bates were married by Saml Sewall Esq. Assist.
 Sept. 16.
 William Crow & Eliza Sargent were married by Simon Bradstreet Esq. Gov.
 Dec. 10.
 Benja. Dyer & Hannah Odlin were married by Saml Sewall Esq. Assist.
 Dec. 10.
 Samuel Durham & Eliza. Reed were married by Saml. Sewall Esq. Assist.
 July 6.
 Amos Fisher & Ruth Adams both of Dedham were married by Saml. Sewall
 Esq. Assist. Dec. 22.
 Richard Flood & Eliza. Harmon were married by Saml. Sewall Esq. Assist.
 Dec. 1.
 Thomas Gwin & Sarah Dixey were married by Isa. Addington Esq. Assist.
 Nov.
 Samuel Grice & Priscilla Green were married by Rev. — Whitman Minist
 of Hull July 14.
 John Hurd & Eliza. Webb were married by Mr. Emblim Baptist Minister
 Mar. 16.
 Nathaniel Holmes & Sarah Thaxter were married by Rev. John Norton
 Minist. of Hingham Oct. 1.
 William Joyce & Sarah Cleverly were married by Saml. Sewall Esq. Assist.
 Sept. 24.
 Nathanl. Jarvise & Eliza. Salter were married by Saml. Sewall Esq. Assist.
 Sept. 28.
 Moses Kenny & Margaret Letherland were married by Isa. Addington Esq.
 Assist. July 24.
 Edward Kettow & Mercy Belcher were married by Mr. Emblin Bapt. Minst.
 Dec. 4.
 Christopher Kilbey & Sarah Simkins were married Mar. 20.
 Isaac Loreing & Sarah Young were married by Isa. Addington Esq. Assist.
 Aug. 5.
 James Loyd & Rebecca Leveret were married by Isa. Addington Esq. Assist.
 Nov. 3.
 Thomas Lawreson & Eliner Loe were married by Saml. Sewall Esq. Assist.
 Aug. 26.
 James Pitts & Eliza. Hough were married by Elisha Hutchinson Esq. Assist.
 Mar. 10.
 Edward Proctor & Eliza. Cock were married by Isa. Addington Esq. Assist.
 Nov. 24.
 William Phillips & Jane Butterfeeld were married by Isa. Addington Esq.
 Assist. Apr. 2.
 John Pasco & Eliza Loft were married by Mr. Emblim Baptist Minis. May 25.
 William Painter & Mary Messenger were married by Saml. Sewall Esq.
 Assist. May 28.
 Mark Pilkinton & Faith Cross were married by Saml. Sewall Esq. Assist.
 Nov. 18.

John Prat & Margaret Maverick were married by Elisha Hutchinson Esq.
July 29.

William Randall & Eliza. Hill were married by Saml. Sewall Esq. Assist.
Dec. 10.

John Smith & Sarah Scudder were married by Saml. Sewall Esq. Assist.
Sept. 16.

Benj. Tout & Mary Winsor were married Aug. 29.

Samuel Thorn & Abigail Barber were married by Saml. Sewall Esq. Assist.
Dec. 17.

Samuel Veazey & Mary Virgoose were married by Saml. Sewall Esq. Assist.
Nov. 25.

Samuel Ward & Mary Sale were married by Isa. Addington Esq. Assist.
Dec. 10.

Samuel Wentworth & Eliza Hopson were married by Isa. Addington Esq.
Assist. Nov. 12.

Jabez of John & Eliza. Allen dyed Aug. 18.

Mary Beard dyed April 31.

Peter of John & Joanna Bennet dyed April 22.

Joseph Brunning dyed Aprill 8th.

Susanna Brunning dyed March 26.

Rainess Belcher dyed Octobr 2.

Nicholas Baxter dyed Janry 10.

Deborah of Thomas & Deborah Cushing dyed July 23.

Edward Cowel dyed Sept 12.

Mary of John & Martha Cornish dyd. Sept. 14.

Katherine wife of Henry Clark dyed Febry 26.

Eliza. Colman dyed Sept. 17.

Mary of John & Martha Clough dyed Aprill 22.

Eliza. of John & Marth Clough dyd. Aprill 25.

James of James & Mary Dennise dyed May 7.

Thomas Dewer Senr. dyed Febry 1.

Nicholas George dyd. April 9th.

Joseph of William & Mary Hough dyed July 31.

John Hurd dyed Febry 18.

Mary Lumsden dyed Febry 24.

Samll Mason Senr. dyed Sept. 20.

Abigall of Samll. & Mary Mason dyed Febry 20.

Nehemiah Pearce dyed March 10.

Mary of Stephen & Judeth Robineau dyed March 11.

David Ransford dyed Novr 28.

Joseph of Joseph & Eliza Rogers dyed Novr 27.

John of John & Ann Smith dyed Octor 3.

Mary of John & Sarah Vickers dyed March 19.

Samuel Walker dyed Octor 12.

Samuel Worden dyed Janry 12.

FIRST CHURCH.

Martha of Sampson Stoddard aged 16 years

Jan. 18.

Sampson of Sampson Stoddard aged 12 years

Jan. 18.

Mary of Sampson Stoddard aged 8 years

Jan. 18.

Mercy of Sampson Stoddard aged 6 years

Jan. 18.

Isabella of Deliverance Legg aged 14 years

Feb.

Daniel of Deliverance Legg aged 9 years

Feb.

John of Deliverance Legg aged 8 years

Feb.

Sampson Duer aged 1 week

Feb.

John More aged 3 weeks

Feb. 22.

Peter Butler aged 8 years

Feb. 22.

John Butler

Feb. 22.

Jane a Negro

Feb. 22.

Elizabeth Egerton aged 9 or 10 years

March 8.

Mary Burgesse

March 15.

Elizabeth Fransis	Apr. 5.
John Mirick	Apr. 5.
Joseph Mirick	Apr. 5.
Bartholmew Chevers aged about 6 ys.	Apr. 19.
Sarah Chevers	Apr. 19.
Susannah Chevers	Apr. 19.
Benjamin Willis	Apr. 26.
William Arnold	May 3.
Mary Arnold	May 3.
Robert Williams	May 3.
Ebenezer Mumford	May 31.
Elizabeth Butler	May 31.
Mary Proctor	May 31.
Thomas of Mr. Jackson	July 26.
Mercy Hawkins	Aug. 2.
Peter Barnes	Aug. 23
Mary Reynolds	Aug. 23
Elizabeth Ingram	Sept. 6.
John Wayte	Sept. 13
Sarah Clough	Sept. 27.
Deborah Thare	Oct. 18.
David Gibson	Nov. 22.
Rebecca Prince	Nov. 22.
Hannah Bridge	Dec. 6.
Boozone of Capt Boozone Allin	Dec. 20.
Samuel of White	Dec. 20.

1692.

TOWN.

Mary of Edward & Mary Ashley born Apr. 13.
 John of Lewise & Abigall Allaire born Dec. 5.
 Eliza. of Theoder & Mary Adkinson born Nov. 28.
 Mary of Nathaniel & Hephysiba Alden born Aug. 20.
 Barakiah of Barakiah & Abigall Arnall born Oct. 10.
 Constantine of Henry & Sarah Bennet born Mar. 8.
 Hannah of Thomas & Sarah Banister born Mar. 19.
 Margaret of Thomas & Margaret Berry born June 25.
 Allexander of Allexr & Margaret Bulman born Jan. 16.
 Christian of John & Sarah Blake born Sept. 16.
 Ebenr of Samuel & Ann Beighton born Sept. 30.
 John of William & Eliza. Burt born Jan. 5.
 William of George & Mercy Bearstow born Jan. 10.
 John of John & Eliza. Benmore born Feb. 3.
 John of Edward & Mary Bartles born Oct. 10.
 Sarah of Edward & Mary Bromfeild born Oct. 11.
 Sarah of John & Mercy Bucker born Dec. 19.
 Sarah of Phillip & Sarah Bass born June 13.
 James of James & Eliza. Barry born June 14.
 Mary of Peter & Sarah Barbour born June 10.
 Ruth of Nathaniel & Mary Baker born June 13.
 Jonathan of John & Hannah Barnerd born Jan. 14.
 Ezekiel of Thomas & Sarah Cheever born Mar. 7.
 Alice of Richard & Hannah Clark born Mar. 1.
 William of William & Martha Cole born Jan. 10.
 Elisha of Ellise & Mary Callender born Apr. 27.
 ——— son of Samuel & Susan Collins born Aug. 30.
 Mary of Willm & Susanna Critchfeild born Sept. 27.
 John of John & Martha Cornish born Mar. 27.
 Andrew of Andrew & Sarah Cuningham born Aug. 17.
 Thomas of John & Eliza. Coombs born Sept. 10.
 Nathaniel of Willm & Lydia Clough born Nov. 22.

Joseph of John & Mary Cotta born Jan. 9.
 William of William & Eliza Crow born Jan 18.
 Alice of George & Mary Clark born Feb. 13.
 Sarah of John & Sarah Carey born June 13.
 Christopher of Christor & Tamozone Capril born Oct. 26.
 Samuel of Saml & Eliza. Durham born Mar. 1.
 Samuel of Jacob & Susanna Davise born Feb. 7.
 Samuel of Edward & Ann Durant born Apr. 4.
 Hannah of Benja. & Hannah Dyer born Sept. 27.
 Sarah of John & Elizabeth Dyar born Feb. 6.
 Mary of Thomas & Ann Dean born Aug. 20.
 Mercy of John & Grace Eliset born Aug. 20.
 Mary of Jonathan & Mary Evans born Dec. 4.
 John of Joseph & Silence Eliott born Mar. 17.
 John of John & Mary Edicott born Feb. 17.
 William of William & Sarah Evstiss born Apr. 11.
 Mary of David & Eliza. Faulkner born Mar. 7.
 John of John & Dorothy Farnum born Apr. 23.
 Mary of David & Dorothy Farnum born Oct. 14.
 Elinor of Hugh & Elinor Floyd born Feb. 12.
 Richard of Richard & Mary Fifeeld born May 12.
 Thomas of Thomas & Hannah Fairwether born Nov. 7.
 Peter of Josiah & Abia Franklin born Nov. 22.
 Henry of Henry & Sarah Franklin born June 24.
 John of Samuel & Susanna Gray born Aug. 16.
 Joshua of Joshua & Eliza. Gee born Aug. 18.
 Hannah of Richard & Hannah Green born Feb. 8.
 Henry of Hezekiah & Annis Gidley born Apr. 5.
 Ann of John & Joan Gee born Apr. 27.
 Anna of Thomas & Lydia Gilbert born June 9.
 Robert of James & Eliza Glass born Sept. 19.
 Priscilla of Samuel & Priscilla Grice born Apr. 12.
 Henry of William & Patience Gibbons born Aug. 18.
 Nathaniel of John & Susanna Gardener born Nov. 20.
 Jeremiah of Nathanll & Elizabeth Green born Feb. 6.
 Eliza. of William & Elizabeth Gill born Jan.
 Eliza. of Thomas & Sarah Gwin born Sept. 3.
 Mary of Bartho: & Mary Green born Oct. 13.
 Jacob of Robert & Mary Gibbs born Mar. 6.
 Nathanll of William & Judeth Hasie born Mar. 13.
 Sarah of Thomas & Mary Hunt born Dec. 9.
 Nathaniel of Ephraim & Sarah Hall born Aug. 14.
 Sarah of Nathanll & Sarah Holmes born Aug. 27.
 Grace of John & Grace Ireland born Jan. 15.
 William of William & Fortune Inglesfeeld born Dec. 19.
 Margaret of Elias & Margaret Jarvise born Mar. 24.
 John of John & Mary Jarvise born Feb. 14.
 Anna of Matthew & Susanna Jones born Apr. 30.
 Richard of Thomas & Hannah Jepson born Apr. 16.
 John of John & Ruth Jepson born Aug. 15.
 Ann of John & Esther Jose born Aug. 18.
 Richard of Richard & Sarah Jenkins born Apr. 11.
 Thomas of Thomas & Priscilla Jackson born July 18.
 Sarah of John & Rebecca Kilbey born Mar. 8.
 George of Roger & Anne Kilcup born Apr. 5.
 Samuel } of John & Emme Kelly born Apr. 11.
 Mary } of John & Emme Kelly born Apr. 11.
 Mary of John & Mary Kneland born Sept. 12.
 Rachel of Zibion & Rachel Letherland born July 30.
 William of Willm & Eliza. Lavise born July 17.
 Lydia of Robert & Lydia Login born Feb. 13.
 James of Samuel & Mary Landman born Mar. 27.
 John of Thomas & Elinor Lawreson born Sept. 10.
 James of James & Rebecca Loyd born Aug. 16.

Mary of Isaac & Sarah Loreing born June 7.
 Samuel of Samuel & Mehitabel Lillie born June 5.
 Mary of Thomas & Mehitabel Lilcoln born Mar. 16.
 Samuel of Deodat & Deborah Lawson born Feb. 9.
 Joseph of David & Martha Landon born Nov. 22.
 Joseph } of Robert & Eliza. Maugridge born Mar. 3.
 Benjamin } of Robert & Eliza. Maugridge born Mar. 3.
 Rebecca of Francis & Martha Marshall born Feb. 7.
 Mary of Joseph & Hannah Maylim born Jan. 22.
 Susanna of Robert & Ann Moor born Feb. 6.
 Margaret of John & Margaret Marsh born Apr. 6.
 Abigail of Thomas & Eliza. Mosamy born Nov. 12.
 Mary of Joseph & Ann Marsh born Dec. 29.
 Edward of Samuel & Mary Maryon born Dec. 2.
 Eliza. of Thomas & Eliza Mesenger born Oct 7.
 Michael of Edward & Sarah Martine born Feb. 25.
 Michael of Edward & Sarah Martin born Feb. 25.
 Isabella of Nathanll & Sarah Newgate born Feb. 8.
 John of John & Keziah Needham born Dec. 22.
 William of John & Susanna Nicholls born May 9.
 Rebecca of Christor. & Sarah Osgood born May 3.
 ——— son of John & Sarah Oliver born Aug.
 John of John & Lydia Osment born Mar. 12.
 Sarah of William and Deborah Phillips born Dec. 28.
 Alexander of Alexr & Sarah Prindle born Apr. 17.
 Eliza. of John & Christian Pitts born Apr. 25.
 Susanna of William & Eliza. Parkman born Sept. 4.
 Thomas of Edward & Susanna Phillips born Aug. 29.
 John of William & Constance Palfrey born Nov. 20.
 Mary of Mark & Faith Pilkinton born July 27.
 John of Thomas & Margaret Powel born Aug. 25.
 Hannah of Philip & Hannah Phinney born June 22.
 Bridget of Samuel & Sarah Philips born Feb. 4.
 Eliza. of Thomas & Mary Pratt born Jan. 24.
 Nathaniel of Benja. & Eliza. Quelch born Dec. 9.
 John of John & Mary Russell born Aug. 25.
 ——— son of John & Mary Russell born Aug. 25.
 Mary of Joseph & Mary Russell born Feb. 12.
 Robert of George & Eliza. Robinson born Jan. 23.
 Mary of John & Mary Roberts born Aug. 16.
 Sarah of Edmund & Mary Ranger born Sept. 15.
 Joseph of Willm & Eliza. Randoll born Sept. 15.
 Benjamin of Eliazur & Martha Starr born Mar. 7.
 Samson of Jabez & Eliza. Salter born Mar. 21.
 John of Samuel & Susanna Saxton born Mar. 7.
 John of Cyprian & Eliza. Southhack born July 15.
 Joyce of Alexander & Rebecca Seers born Nov. 26.
 John of Richard & Tamozine Skinner born Jan. 6.
 Hannah of Joseph & Margaret Soper born Apr. 13.
 Sarah of Robert & Abigail Seers born Aug. 11.
 Luke of Josiah & Mary Stone born Aug. 30.
 Ryal of Henry & Purchase Spry born Feb. 20.
 John of John & Ann Smith born July 7.
 Eliza. of Joseph & Eliza. Townsend born Oct. 1.
 Grace of William & Isabella Tyly born Nov. 4.
 Samuel of Samuel & Abigail Thorn born Oct. 25.
 Michael of John & Hannah Tapper born Dec. 6.
 John of John & Mary Tucker born Dec. 12.
 John of William & Mary Thwing born June 18.
 Ann of James & Rebecca Taylor born Nov. 13.
 Eliza. of Benja. & Mercy Tout born ———
 John of David & Mary Vaughan born Apr. 10.
 Joanna of John & Sarah Vickers born Sept. 25.
 Samuel of Samuel & Ayme Winslow born June 28.

Sarah of Nathanl & Mary Williams born Sept. 30.
 Joanna of Saml & Mary Ward born Oct. 31.
 Joshua } of Thomas & Rachel Winsor born Dec. 29.
 Caleb } of Thomas & Rachel Winsor born Dec. 29.
 Jane of Ebenezer & Deliverance Weeks born Mar. 29.
 Sarah of Thomas & Sarah Wheeler born Apr. 10.
 Eliza. of William & Mary Wilson born Oct. 4.
 Timothy of Timothy & Susanna Wadsworth born Nov. 3.
 Mary of James & Eliza. Worth born Dec. 10.
 Daniel of Daniel & Hannah Ware born Nov. 26.
 Thomas of Thomas & Tryphana Woodard born Sept. 26.
 Ann of William & Ann Wheeler born July 19.

Moses Bradford & Eliza. Allen were married by Rev. James Allen Dec. 8.
 Charles Beuford & Hannah Bickner were married by Rev. Saml. Willard
 Feb. 10.
 William Bryant & Hannah Disiter were married by Samuel Sewall Esq.
 Assist. June 9.
 John Bull & Mary Woodward were married by Samuel Sewall Esq. Assist.
 Apr. 21.
 Zachery Bignell & Hannah Smith were married by Jer. Dummer Esq.
 Nov. 24.
 Samuel Buckner & Mary Bille were married by the Parson of the Church of
 Engld. Oct. 27.
 William Colman & Margaret Haywood were married by John Phillips Esq.
 Assist. June 30.
 Joshua Cornish & Susanna Bennet were married by Rev. John Bayley Nov. 8.
 Stephen Cross & Mary Lawrence were married by Rev. Cotton Mather
 Jan. 23.
 Samuel Clark & Sarah Avise were married by John Eyer Esq. J. Pac.
 Sept. 8.
 William Copp & Ann Ruck were married by John Philips Esq. Assist.
 May 24.
 Moses Draper & Mary Thatcher were married Nov. 3.
 Capt. John Fairwether & Mary Hewes were married by Rev. James Allen
 Nov. 17.
 Richard Green & Hannah Sherrar were married by Saml. Sewall Esq. Assist.
 June 1.
 Robert Gyles & Margaret Barret were married by Rev. James Allen Feb. 17.
 John Green & Bethiah Messenger were married by Saml. Sewall Esq. Assist.
 Jan. 17.
 Abram Gourden & Abigail Towers were married by Rev. Cotton Mather
 Jan. 5.
 John Gerrish & Lydia Watts were married by Simon Bradstreet Esq. Gov.
 Apr. 19.
 Robert Gibbs & Mary Shrimpton were married by John Richards Esq. Assist.
 May 19.
 Henry Gibbs & Mercy Greenough were married June 9.
 William Gill & Eliza. Scarlet were married May 3.
 Benja. Hallawell & Mary Stocker were married May 12.
 Eben. Holmes & Sarah Withington were married by Saml. Sewall Esq.
 Assist. Feb. 2.
 John Hallaway & Mary Grant were married by Saml. Sewall Esq. Assist.
 Feb. 2.
 Saml. Hood & Rebecca Thwing were married by John Eyer Esq. J. Pac.
 July 17.
 Nathl Kettle & Joanna Ellise were married by John Eyre Esq. J. Pac. Oct. 5.
 Joseph Lobdale & Eliza Townsend were married by John Joyliffe Esq. J. Pac.
 Sept. 1.
 Joseph Marsh & Ann Thurogood were married by Saml. Sewall Esq. Assist.
 Mar. 2.
 Thomas Okes & Eliza Danson were married by Rev. James Allen Feb. 2.
 Thomas Phillips & Mary Howard were married by Isa. Addington Esq. Assist.
 Mar. 1.
 Stephen Palmer & Eliza. Cheever were married by Rev. James Allen Jan. 19.

Joylieffe Price & Rebecca Coney were married by John Joylieffe Esq. J. Pac.
Dec. 7.

Francis Parnell & Dorothy Fowles were married by John Phillips Esq. Assist.
Aug. 15.

Richard Prat & Mercy — were married March 16.

Andrew Rankin & Grace Butler were married by Simon Bradstreet Esq. Gov.
Apr. 5.

James Rayner & Eliza. Andrews were married by William Bond Esq. J. Pac.
Oct. 25.

Joseph Skeath & Hannah Davise were married by Isa. Addington Esq. Assist.
Apr. 18.

Richard Skinner & Tamozine Taylor were married by Saml. Sewall Esq.
Assist. Apr. 21.

Abrm. Tuckerman & Constance Worster were married by John Eyer Esq. J.
Pac. July 15.

Edward Taylor & Jane Payn were married by John Richards Esq. Assist.
Aug. 4.

Philip Voden & Abigail Kemball were married by Rev. Cotton Mather
Dec. 22.

Isaac Virgoose & Eliza. Foster were married by James Russell Esq. Assist.
July 5.

Christopher Vale & Joanna Heifernan were married by Jeremiah Dummer
Esq. Sept. 21.

Benja. Webb & Susana Ballintine were married by Saml. Sewall Esq. Assist.
Nov. 21.

Jonathn. Waldo & Hannah Mason were married by Saml. Sewall Esq. Assist.
Nov. 28.

Thomas Walley & Christian Johnson were married by John Eyer Esq. J.
Pac. Sept. 22.

Eliza of John & Sarah Alger dyed Febry 26.

Eliza wife of Nathll. Barnes dyd. Septr. 20.

Moses Bradford Senr. dyed March 23.

Lydia of John & Sarah Balston dyed Aug. 12.

Margaret wife of John Clough dyed Febry. 10.

Mercy of John & Grace Elliset dyed Sept. 17.

Jeremiah Fitch dyed May 3.

Thomas Grubb dyed July 25.

Joshua of Joshua & Eliza Gee dyed Aug. 18.

Ralph Hewes dyed Novr. 13.

Thankfull of John & Experience Howard dyed Octobr. 1.

James of James & Rebecca Loyd dyed Aug. 25.

Mary of Isack & Sarah Lowrin died Aug. 20.

John Magor dyed July 15.

Grace of Thomas & Bethulea Mighell dyed May 25.

Thomas of Tho. & Elizabeth Mesenger died July 26.

Rebecca of Nathanll & Hannah Parkman dyed Aug. 9.

Samll Smith dyed June 15.

Ketura Savery dyed April 15.

Margaret wife of Thomas Smith dyed Octor. 7.

Abigail of Wm. & Martha Shoot died Sept. 27.

Eliza. of Samuel & Mehitabel Worden dyed May 18.

Mary of Isack & Sarah Lowrin died Aug. 20.

Thomas of Tho. and Elizabeth Mesenger died July 26.

Abigail of Wm. and Martha Shoot died Sept. 27.

FIRST CHURCH.

Mary of sister Chevers the younger

Jan. 10.

Judith of sister Waldo

Jan. 31.

Lydia of bro. Experience Willis

Feb. 28.

Hannah of Mr. Bannister aged 2 days.

Mar. 20.

Cornelius } twins of sister Pecke the younger now Waldo

Mar. 27.

Jonathan }

Mar. 27.

Abigail of John Moore	Apr. 10.
Shubael Dummer	Apr. 17.
Mary Ashley	Apr. 17.
Catharine George Grand child to Mr. Lee aged 8 days	June 4.
James Berry aged 4 days	June 19.
John Clow	June 26.
John Tu son. she was daughter Leatherlands wife ¹	Aug. 7.
James Lloyde	Aug. 21.
Joshua Gee	Aug. 21.
Henry Gibbons	Aug. 21.
Sarah Anger	Sept. 18.
Thomas Coombes	Sept. 18.
Christian Blake	Sept. 18.
Hannah of Benjamin Dyer	Oct. 3.
Elizabeth Messenger aged not 1 week.	Oct. 10.
Benjamin Pecke aged some years	Oct. 10.
Samuel Pecke aged some years	Oct. 10.
Priscilla Gardiner	Oct. 23.
John Gardiner	Oct. 23.
Jeremiah Gardiner	Oct. 23.
Samuel Thorne	Oct. 30.
Joanna Ward	Nov. 6.
Nathaniel Gardiner	Nov. 27.
Elizabeth Atkinson	Dec. 4.
Nathaniel Quelch	Dec. 11.

1693.

TOWN.

Mary of William & Mary Alden born Feb. 14.
 William of Joseph & Ann Allen born Sept. 22.
 John of John & Hannah Adams born Nov. 4.
 John of John & Mary Atwood born Feb. 16.
 Peter of Nicholas & Margaret Allen born Mar. 21.
 Susanah of Joseph & Comfort Alison born Jan. 4.
 Rebecca of John & Grace Alliset born Oct. 19.
 Abraham of Abraham & Abigall Adams born July 14.
 Sarah of Benja. & Mary Alford born Mar. 17.
 Thomas of Jacob & Theodosia Bill born Mar. 30.
 Susanah of Joseph & Rebecca Brisco born Apr. 15.
 Saml of Samll & Hannah Burrell born Apr. 18.
 Hanah of Joseph & Hanah Billings born Mar. 15.
 Eliz. of John & Elizabeth Buckanan born Mar. 1.
 Margaret of John & Susanah Buttler born June 1.
 Eliz. of John & Sarah Banister born July 21.
 Joseph } of Ambros & Hanah Berry born July 11.
 Benja. } of Ambros & Hanah Berry born July 11.
 Samuell of Saml & Mary Bucknel born June 4.
 Rebecka of Nathll & Rebecka Bolston born July 3.
 Joseph of Henry & Abiell Brightman born July 19.
 Sarah of Daniel & Sarah Ballard born Sept. 6.
 John of Moses & Elizabeth Bradford born Septr. 18.
 Peter of Francis & Frances Buckitt born Apr. 24.
 Eliz. of Richard & Catharine Barnard born Sept. 5.
 Mary of Willm & Mary Browne born Sept. 10.
 George of George & Ruth Badcock born July 28.
 William of Samuel & Christian Bridge born Sept. 14.
 Robert of Jarvis & Martha Ballard born Oct. 15.
 William of William & Mary Brown born Nov. 18.
 John of Richard & Elizabeth Bearson born Dec. 31.

¹ Perhaps Mrs. Tu was a daughter of Mrs. Leatherland, or possibly Mrs. Leatherland had a daughter baptized the same day. — W. S. A.

Mergeret } of Alexander & Margaret Bulman born Jan. 4.
 Elizabeth } of Alexander & Margaret Bulman born Jan. 4.
 Mercy of John & Charity Baley born Jan. 29.
 Merget of Peter & Sarah Barber born Feb. 12.
 Merget of Isaac & Ann Biscon born Jan. 30.
 Oliver of Oliver Berry born Feb. 26.
 John of William & Sarah Burrage born Feb. 11.
 Samuel of Edward & Mary Bartells born Mar. 11.
 Mary of Peter & Elizabeth Buttler born Feb. 21.
 Kathrine of Josiah & Mary Baker born Mar. 23.
 Sarah of Philip & Sarah Bass born Apr. 5.
 Thoms. of Thomas & Lydia Burington born Apr. 13.
 Susana of William & Mary Barnsdell born Apr. 18.
 Thomas of Thomas & Mary Bosenger born June 18.
 John of David & Mary Basset born June 9.
 Mary of Thomas & Margaret Bomer born June 6.
 Dorcas of Nicholas & Dorcas Bose born Dec. 5.
 Rachel of John & Hannah Carlile born Mar. 7.
 Ann of William & Ann Copp born Mar. 17.
 Susanah of Nicholas & Sarah Cocke born Mar. 23.
 Mary of Samuel & Ruth Clough born Apr. 4.
 Eliz. of Ebenezer & Eliza. Chafein born Apr. 5.
 William of John & Sarah Cooper born Mar. 12.
 Philip of Edward & Sarah Cruff born May 22.
 Mary of John & Ruth Cooke born June 27.
 Alexander of Alexander and Eliza. Clomy born July 11.
 Sarah of Edward & Sarah Clarke born May 25.
 Sarah of John & Sarah Clarke born Sept. 17.
 Susanna of Job & Joanna Chamberling born Nov. 23.
 Mary of John & Priscilla Chadwick born Dec. 1.
 Rachel of Edward & Sarah Collings born Dec. 9.
 Eliza of Francis & Sarah Cole born Jan. 9.
 Thomas of Thomas & Deborah Cushing born Jan. 30.
 Ebenezer of Caleb & Sarah Chafin born Jan. 29.
 James of James & Elizabeth Crockford born Feb. 20.
 John of James & Mary Cornish born Aug. 29.
 Eliz. of Samuel & Mary Chickley born Sept. 3.
 Mary of Paul & Mary Collings born July 15.
 Thomas of Thomas & Mary Downe born Aug. 28.
 Ann of Richard & Sarah Draper born July 7.
 Joseph of Henry & Abigail Dawson born Sept. 3.
 Thomas of Benjamin & Hannah Dyer born Nov. 7.
 William of John & Rachel Draper born Dec. 27.
 Sarah of Henry & Elizabeth Dickerson born Jan. 29.
 Sarah of Thomas & Hannah Davis born May 12.
 Martha of Edmun & Sarah Dolebear born Feb. 23.
 Moses of Moses & Mary Draper born Sept. 12.
 Elizabeth of Zachary & Sarah Davise born Nov. 11.
 Benjamin of Benjamin & Mary Emms born June 24.
 Eliza. of John & Elizabeth Egbear born Oct. 1.
 Eliza. of Benja. & Elizabeth Emons born Nov. 8.
 Rachel of Rachel & David Eustiss born Feb. 16.
 John of William & Eliza. Endicutt born Dec. 23.
 Eliza. of William & Abigail Everdon born Feb. 7.
 James of Richard & Elizabeth Flood born June 11.
 Penelope of Joseph & Rebecca Fuller born July 20.
 Eliza. of John & Sarah Fosdick born Sept. 16.
 Joseph of Jonathan & Martha Farnum born Oct. 19.
 John of Gyles & Elizabeth Fifield born Sept. 11.
 Eliza. of John & Catharine Fowle born Oct. 20.
 Peter of William & Esther Frothingham born Oct. 24.
 Hannah of David & Eliza. Faulkner born Jan. 19.
 Benjamin of Benjamin & Mary Fitch born Jan. 13.
 Jacob of Robert & Mary Gibbs born Mar. 6.

Margaret of David & Martha Gwin born Mar. 6.
 Christopher of Christopher & Abigail Goffe born July 13.
 Susanna of John & Susanna Garrett born July 3.
 Mary of Samuel & Elizabeth Gaskell born Aug. 20.
 Mehitable of William & Hannah Gibson born Aug. 28.
 James of James & Hannah Gooch born Oct. 12.
 John of Abraham & Abigail Gorden born Oct. 15.
 Ann of Benjamin & Abigail Gillam born Nov. 7.
 Eliza. of John & Lydia Geerish born Oct. 19.
 Mary of John & Bethiah Green born Nov. 11.
 Anna of Samll & Prisilla Grice born Feb. 14.
 John of John & Elizabeth Gaud born Mar. 13.
 Mary of Joshua & Elizabeth Gee born Jan. 25.
 Lydia of Thomas & Lydia Gilbert born Aug. 14.
 John of Joseph & Hannah Grant born Sept. 22.
 Mary of Benja. & Mary Hollowell born Mar. 17.
 Hannah of Ambrose & Hannah Honnowell born June 7.
 Mary of James & Lydia Hawkins born May 17.
 John of John & Ann Hobby born July 2.
 William of William & Ann Holowell born July 31.
 Eliza. of William & Elizabeth Hall born May 16.
 George of Hercules & Jane Hewitt born Mar. 27.
 Eliza. of Nathanll & Elizabeth Hatch born Aug. 2.
 William of John & Elizabeth Higgs born Aug. 23.
 Margaret of Heseciah & Abigail Henchman born Jan. 7.
 Benjamin of Benja. & Mehitable Hopkins born Jan. 20.
 Abigail of John & Dorcos Hiscot born Jan. 29.
 Abigail of William & Mary Haugh born Feb. 8.
 Job } of Job & Hannah Ingraham born Apr. 19.
 Jere } of Job & Hannah Ingraham born Apr. 19.
 Nathll of Thomas & Priscilla Jackson born May 15.
 Nathll of Nathll & Elizabeth Jarvis born Nov. 9.
 Rebecca of David & Elizabeth Jefferies born Dec. 9.
 Hannah of Thomas & Hannah Jepson born Dec. 29.
 David of John & Mary Jenkins born Feb. 20.
 Nathanll of Nathanll & Joanna Kettle born Oct. 14.
 Christopher of John & Rebecca Kilbee born Dec. 9.
 George of George & Agnis Lourein born June 27.
 Cromwell of Joseph & Elizabeth Lobdell born June 12.
 Sarah of Isaac & Sarah Lorin born Aug. 26.
 Paul of Philip & Mary Langdon born Sept. 12.
 Solomon of Solomon & Sarah Legeree born Sept. 17.
 Richard of Richard & Mary Lowden born Jan. 9.
 Mehitable of Samuel & Mehitable Lilly born Feb. 2.
 Ann of James & Ann Leblond born Apr. 8.
 Benjamin of David & Martha Landon born Dec. 18.
 Samuel of John & Martha Morton born Aug. 3.
 Thomas of Thomas & Elizabeth Muligan born Apr. 27.
 Ebenezer of Daniel & Susanna More born July 22.
 Joseph of Cotton & Abigail Mather born Mar. 28.
 Ann of William & Mary Morer born Aug. 18.
 Abraham of Robert & Elizabeth Maugridge born Nov. 1.
 Sarah of Robert & Elizabeth Maugridge born Nov. 1.
 Mary of Duncan & Mary Mackfarland born Jan. 22.
 Johanna of Samuel & Ruth Marshall born June 26.
 Sarah of Nathaniel & Rest Newhall born Mar. 14.
 Eliza. of George & Elizabeth Newby born Jan. 29.
 Bass of Bass servant of Samuel Lilly (negro) born Feb. 4.
 Eliza. of William & Sarah Owen born Aug. 1.
 Eliza. of Stephen & Eliza. Palmer born Mar. 2.
 Eliza. of Thomas & Mary Parris born July 10.
 John of William & Eliza. Parkeman born Jan. 19.
 Mary of Edward & Eliza. Procter born June 16.
 Samuel of Richard & Dorothy Poutland born July 4.

Samuel of Samuel & Hannah Philips born May 26.
Margaret of Thomas & Margaret Powell born July 18.
Hannah of ——— & Hannah Porter born July 12.
Mehitable of Job & Rebecca Prince born Sept. 3.
Hannah of Robert & Hannah Prise born Sept. 12.
Francis of Francis & Dorothy Pornall born Sept. 26.
Eliza. of James & Elizabeth Pitts born Dec. 30.
Thomas of Thomas & Rachel Parker born Feb. 19.
Benjamin of Thomas & Ruth Prince born Feb. 28.
Joseph of Thomas & Elizabeth Pyke born Mar. 7.
Benjamin of John & Charity Ricks born June 9.
Andrew of Andrew & Grace Rankin born July 13.
Eliza. of Joseph & Martha Ransford born May 17.
James of James & Elizabeth Rayner born Sept. 28.
Hanah of Kaleb & Hanah Ray born Oct. 2.
Sarah of George & Elizabeth Robinson born Feb. 5.
Nathll. of Nathll. & Ruth Raynolds born Jan. 14.
Hannah of John & Bridget Rylee born Sept. 10.
Mary of John & Mary Robinson born Oct. 30.
Abigail of Rowland & Ann Storey born Mar. 11.
John of John & Rebecca Smith born Feb. 20.
John of Joseph & Hannah Simpson born June 12.
Elizabeth of David & Elizabeth Stephens born June 22.
James of James & Edy Seward born June 29.
Thomas of Samuel & Hannah Smith born Aug. 6.
Joanna of Michael & Hannah Sale born Aug. 27.
William of William & Martha Shute born Mar. 22.
Jane of Samuel & Hannah Sewell born Aug. 7.
Benjamin of Francis & Mary Smith born Aug. 17.
John of John & Margaret Soaper born Nov. 16.
William of Simeon & Mary Stodard born Nov. 6.
Abraham of John & Jane Snelling born Dec. 5.
Joanna of Benjamin & Joanna Stone born Dec. 20.
Thomas of Thomas & Mehetable Savage born Jan. 20.
Joseph of Joseph & Hannah Skeath born Nov. 28.
Mary of John & Mary Sunderlin born Feb. 2.
Hannah of John & Lydia Seally born Mar. 5.
William of William & Eliza. Straton born Feb. 1.
Mary of John & Martha Tuttle born Nov. 9.
John of Daniel & Anna Turrell born Apr. 18.
John of John & Martha Twing born June 2.
Eliza. of George & Rebecca Tomas born July 28.
Jeremiah of Jeremiah & Mercy Toy born Oct. 30.
Hannah of Samuel & Hannah Tulley born Feb. 16.
Hannah of William & Hannah Turner born Feb. 25.
Eliza. of Richard & Hannah Tout born Mar. 12.
John of Edward & Abigail Tuttel born Mar. 11.
Eliza. of Benja. & Mercy Tout born May 7.
Katharine of James & Elizabeth Vpduke born June 7.
Eliza. of Isaac & Elizabeth Vergoose born May 5.
Mary of Thomas & Hannah Vering born Nov. 5.
Mary of Christopher & Joanna Vale born June 20.
Eliza. of Andrew & Elizabeth Veach born Aug. 5.
Abigail of Philip & Abigail Voden born Aug. 13.
Jacob of James & Abigail Woodmansey born Mar. 1.
Edward of Edward & Hannah Winslow born Apr. 15.
Charles of Andrew & Elizabeth Waker born Apr. 17.
Eliza. of John & Abigail Winslow born Apr. 2.
Mildred of Michael & Elizabeth Willis born May 7.
Eliza. of John & Elizabeth Walley born May 4.
Samuel of Francis & Mary Whitman born May 19.
Susanna of James & Mary Webster born June 7.
Anna of John & Sarah Ware born June 11.
Eliza. of Amos & Elizabeth Wedland born Sept. 14.

William of William & Eliza. Wheeler born Oct. 19.
 Richard of Return & Martha Wait born Oct. 21.
 James of James & Esther White born Nov. 12.
 John of John & Abigail Winslow born Dec. 31.
 Mary of Richard & Phebe Whitridge born Feb. 8.
 Ebenezer of Ebenezer & Deliverance Weeks born Nov. 23.
 Edward of Samuel & Elizabeth Wentworth born Feb. 5.
 Thomas of Thomas & Sarah Wheeler born Feb. 18.
 Mercy of Andrew & Bethiah Willson born Feb. 17.
 Rachel of John & Eliza. Welch born Jan. 12.

Walter Allen & Elizabeth Middleton were married by Jer. Dummer Esq.
 Dec. 11.
 Edward Bear & Mary Hale were married by Saml. Sewall Esq. Assist. May 19.
 John Battis & Mary Kelley were married by Samuel Sewall Esq. Assist.
 June 15.
 John Barrel & Sebella Legg were married by Rev. John Bayley Sept. 14.
 Thomas Blower & Eliza Gridley were married by Saml. Sewall Esq. Assist.
 Sept. 21.
 Francis Brooker & Sarah Hubbert were married by Rev. James Allen Nov. 9.
 James Babage & Eliza Davise were married by Rev. Cotton Mather Oct. 9.
 John Benmore & Mary Richards were married by Rev. Cotton Mather Nov. 16.
 Benjamin Blackleech & Mary Bucknell were married by Mr. Theodot Lawson
 minister Sept. 18.
 Joseph Calef & Mary Ayer were married by Rev. James Allen Mar. 24.
 Thomas Carter & Ruth Mountfort were married by Rev. James Allen May 2.
 Jeremiah Cushing & Judeth Parminter were married by Rev. Saml. Willard
 Mar. 29.
 John Clough & Mary Beard were married by Saml. Sewall Esq. Assist.
 Apr. 12.
 Ebenezer Clough & Martha Goodwin were married by Rev. Cotton Mather
 Mar. 28.
 John Child & Hannah French both of Watertown were married by Rev. John
 Bayley Sept. 5.
 Samuel Capen & Ann Stone both of Dorchester were married by Rev. John
 Bayley Nov. 16.
 Daniel Collings & Rebecca Clemans were married by Rev. John Bayley
 Dec. 13.
 Robert Cook & Submit Weeks both of Dorchester were married by Rev.
 James Allen Oct. 26.
 Henry Champney & Eliza Worthylake were married by Rev. Cotton Mather
 Dec. 8.
 Joseph Clerk & Sarah Wells were married by Rev. James Allen Dec. 11.
 James Dowell & Eliza Wing were married by Rev. Saml. Willard Apr. 27.
 Henry Dickeson & Eliza. Castle were married by Saml. Sewall Esq. Assist.
 Oct. 25.
 Simon Dewolfe & Alice Bolt were married by Saml. Sewall Esq. J. Pac.
 Jan. 19.
 Robert Davise & Jane Alger were married by Rev. Cotton Mather Feb. 19.
 John Edwards & Amey Warren were married by Saml. Sewall Esq. Assist.
 Mar. 2.
 Edward Edlington & Phebey Holman were married by Saml. Sewall Esq.
 Assist. June 27.
 William Eame of Long Island & Mary Balston of Muddy River were married
 by Rev. James Allen July 12.
 Arthur Eastmead & Mary Hix were married by Rev. Saml. Willard Aug. 4.
 Edward Egleston & Phebee Holman were married July 27.
 Benja. Fitch & Mary Hett were married by Rev. Cotton Mather March 2.
 John Fairfield & Eliza. Badson were married by Rev. James Allen Apr. 18.
 John Flack & Mary Varney were married by Saml. Sewall Esq. Asst. Dec. 23.
 Samuel Gardener & Eliza. Goodwin were married by Rev. Cotton Mather
 May 11.
 John Greenough & Eliza. Gross were married by Rev. James Allen Oct. 18.
 Robert Griffin & Mary Ruddock were married by Rev. Saml. Willard Feb. 1.

Edmund Gross & Dorothy Belcher were married by Rev. Cotton Mather Feb. 19.
Samuel Gurney & Sarah Shapley were married by Pen Townsend Esq. Oct. 26.
William Hough & Mary Bricknell were married by Rev. Cotton Mather March 24.
Nathl. Halsie & Hannah Gross were married by Rev. Cotton Mather June 22.
Michael Homer & Mary Burroughs were married by Rev. Cotton Mather July 13.
Joseph Hall & Mary Bill were married by Saml. Sewall Esq. Assist. July 13.
John Homer & Margery Stephens were married by Rev. Saml. Willard July 13.
Obadiah Haws & Rebecca Cowen were married by Saml. Sewall Esq. J. Pac. Dec. 19.
John Hewson & Susanna Norden were married by Rev. Cotton Mather Aug. 17.
Nathl. Henchman & Hannah Green were married by Rev. Cotton Mather Jan. 11.
Francis Holmes & Rebecca Wharfe were married by Rev. Cotton Mather Feb. 15.
Samuel Hooper of Marblehead & Mary White of Boston were married by Rev. Cotton Mather Feb. 16.
Job. Hilliard & Mary Fowl were married July 4.
John Hudson & Susanna Norden were married Aug. 17.
Thomas Hatherly & Lydia Green were married by Thomas Danforth Esq. Aug. 1.
Joseph Hasie & Hannah Buckman were married by Mr. Thomas Cheever Jan. 12.
Thomas Hammond & Mehitabel Veray were married by Jer. Dummer Esq. June 15.
John Johnson & Margaret Cowell were married by Rev. Saml. Willard Aug. 2.
Thomas Lyon & Anne Case were married by Saml. Sewall Esq. J. Pac. Nov. 1.
Joshua Linkoln & Hannah Palmer both of Hingham were married by Rev. James Allen Feb. 12.
Eliezur Morton & Rebecca Marshall were married by Rev. Saml. Willard Apr. 11.
Thomas Mellens & Mary Thredneedle were married by Rev. Saml. Willard Sept. 28.
David Mason & Eliza Clark were married by Rev. Saml. Willard. Dec. 12.
John Mountfort & Mary Cock were married by Saml. Sewall Esq. J. Pac. Jan. 17.
Robert Mason & Mary Ridman were married by Rev. James Allen Jan. 31.
Robert Mason & Mariot Redman were married Jan. 30.
George Nowell & Eliza. Johnson were married by Rev. Cotton Mather Oct. 13.
Jabez Negus & Sarah Brown were married by Rev. James Allen Jan. 9.
William Owen & Sarah Vitterell were married by Rev. Cotton Mather Apr. 28.
Samuel Oake & Joanna Phillips were married by Rev. Samuel Willard Oct. 4.
Robert Oliver & Elizabeth Burey were married by Rev. Cotton Mather Sept. 14.
Jonathan Pollord & Mary Winslow were married by Rev. Saml. Willard Dec. 26.
William Perram & Martha Penewell were married by Rev. Cotton Mather Nov. 16.
Arthur Power & Sarah Makaset both of Brantrey were married by Rev. James Allen Jan. 17.
Samuel Ruck & Hannah Nicholson were married by Rev. James Allen Apr. 4.
Joseph Russell & Susanna Cheever were married by Rev. James Allen June 5.
Thomas Salter & Mary Habberfeeld were married by Rev. Saml. Willard May 4.
Joseph Snelling & Sarah Sedgwick were married by Rev. Cotton Mather June 8.
Josiah Sanders & Rachel Holman were married by Rev. James Allen Dec. 4.
Joseph Scott & Eliza. Winslow were married by Rev. Saml. Willard Jan. 18.
Robert Sanderson & Sarah Crow were married by Saml. Sewall Esq. J. Pac. Dec. 21.
Digory Sargent of Worster & Constance James of Boston were married by Rev. Cotton Mather Oct. 13.

Samuel Swetman & Margaret Peard were married by Rev. Cotton Mather Oct. 26.
 Seth Smith & Mehitable Heath were married by Rev. Cotton Mather Jan. 10.
 Simon Tainter & Joanna Stone both of Watertown were married by Rev. John Bayley May 9.
 Henry Tomson & Mary Keeffe were married by Saml. Sewall Esq. Assist. Aug. 8.
 Henry Tomson & Mary Vocory were married by Saml. Sewall Esq. Assist. Sept. 11.
 James Townsend & Mary Lynck were married by Rev. James Allen Nov. 7.
 John Tuckerman & Susanna Chamberline were married by Rev. James Allen Nov. 14.
 Benja. Thaxter & Susanna Molton were married by Rev. James Allen Dec. 4.
 Anthony Thoring & Sarah Courser were married by John Eyer Esq. J. Pac. Nov. 3.
 John Turner & Susanna Kennet were married by Rev. Cotton Mather Feb. 14.
 Samuel Thayer & Susanna Scant both of Brantrey were married by Rev. James Allen Jan. 17.
 Samuel Townsend & Elizabeth ——— were married Mar. 15.
 Thomas Veakin & Zipora Arra (negroes) were married by Rev. Cotton Mather Nov. 20.
 Joseph Withington & Deliverance Leadbetter were married by Saml. Sewall Esq. Assist. Mar. 29.
 Saml. Warkman & Martha White were married by Rev. James Allen Aug. 3.
 John Wakefeeld & Eliza. Walker were married by Rev. Cotton Mather Nov. 23.
 Ezra Whitmarsh & Bathsheba Richards both of Weymouth were married by Rev. Cotton Mather Jan. 20.

Edward of Jarvice & Martha Ballard dyed March 25.
 Edward Allen Died May 31.
 Abraham of Abraham Adams Died July 16.
 Josiah of Jonathan & Rebecca Adams Died Sept. 15.
 Mary Allen Died Octor. 11.
 Abigall of Abrah. & Abigall Adams Died Decemr 31.
 Mary Wife of Edward Belcher Died March 21.
 Mary Wife of Robart Browne Died March 16.
 Christian Blake Died May 1.
 Joseph of Ambrose Berry Died July 24.
 Benjamin of Ambrose Berry Died July 16.
 Sarah of John & Mercy Booker Died Aug. 26.
 Mary wife of John Bennet Died Aug. 3.
 John Bennet of Nodles island Died Augt. 4.
 Mary Relect of mr. John Blake Died Janry 7.
 Hanah of Nathll & Hanah Baker Died Sept. 10.
 Alexander Clemy Died Augt. 9.
 Mary of John & Sarah Clarke Died Octor. 8.
 Sarah of John & Sarah Clarke Died Octor. 16.
 Caleb of Caleb Chapin Died Feb. 14.
 Richard Cornish Died Febr. 6.
 Sarah wife of Richard Cornish Died Aug.
 John Cowell Died Decemr.
 Left. Bartho. Chiveer Died Decr. 18.
 Hanah Wife of Edward Drinker Died May 14.
 Rebecca Elistone Died June 8.
 Capt. Jacob Eliott Died July.
 Joan Wife of John Gee Died July 17.
 John Gee Died July 25.
 Capt. William Greenoug Died Aug. 6.
 Isack Griffin Died July 30.
 Hanah wife of Michael Homer Died Aprill 28.
 Esther Houchin Died July 2.
 William Hawkins died Sept. 27.
 John Higgs Died Octr. 22.

Hanah wife of Joseph Hasey died Augt. 18.
 Mary Wife of William Hough Died June 27.
 Mary of William & Mary Hough Died Sept. 29.
 William How Esquire died Decr. 22.
 Elizabeth wife of Joseph How Died Sept. 9.
 John of John & Ruth Jepson Died Feb. 7.
 Joana Johnson Died May 24.
 Jonathan Jackson Died Aug. 28.
 Richard Kennet Died Aprill 1.
 Thomas of Tho. & Elizabeth Kellen Died Feb. 28.
 Mr. James Loyd Died July.
 Rachell Letherland Died Sept. 1.
 John Lawranc Died Apr. 16.
 Isack Lewes Died Aprill 6.
 Joseph of Cotton Mather Died Apr. 1.
 Joseph of James & Hanah Miriack Died Sept. 19.
 Ebinezer of Daniell & Susana Morey Died Sept. 17.
 John Moor Died July 7.
 Rachell Daugt. of John Moor Died Janry 14.
 John of John & Kesiah Nedam Died July 29.
 John of David Norton Died Augt. 20.
 Besse of Besse Negro Svt Samll Lilly Died Februry 18.
 Mary Relect of Samuell Nowell Died Aug. 14.
 Bethiah Oliver Died July 27.
 Thomas Pemberton Died July 26.
 Elizabeth Parkeman Died Aug. 22.
 Mary Parris Died Aug. 13.
 Elizabeth Parris Died Aug. 22.
 Ruth of Nathll & Ruth Raynols Died March 16.
 Benjamin of John & Charity Ricks Died June 16.
 William Robins Died May 7.
 Samuell Sexton Died July 21.
 Sarah Sneling Died Augt. 4.
 Jane of Samll & Hanah Sewell Died Sept. 13.
 Deacon Robart Sanderson Died Octor 7.
 Mary wife of Capt. John Smith Died Janry 24.
 Thomas Smith Died Novr. 1.
 John of Daniell & Anna Turrell Died Dec. 1.
 Elizabeth wife of Joseph Townsend Died Febr. 27.
 Margaret Thatcher Died Febr. 23.
 Eliza. of Isack & Elizabeth Vergoose Died May 20.
 Sarah wife of Thomas Warren Died May 4.
 Lawrence Waters died Sept. 26.
 Sarah Willet died Octor 21.
 Daniell of Daniell & Hanah Ware died Janry 8.
 Nathaniell of Samuell Wentworth Died Sept. 10.
 Ebinezer of Ebinezer Weeks died Decr 8.
 Sampson Waters died Augt 14.
 James Woodmancy died Feb. 26.

FIRST CHURCH.

Joseph Cotta	Jan. 14.
Jeremiah Green	Feb. 12.
Isabella Newgate	Feb. 12.
Sarah Dyer	Feb. 12.
Sarah Manning	Feb. 26.
Job Ingram	Apr. 23.
Jeremiah Ingram	Apr. 23.
Hannah Ingram	Apr. 30.
Mildred Willis	May 7.
Nathaniel Jackson	May 21.
Mary Hawkins	May 21.
Joseph Howard	May 21.

John Kinge	June 4.
Catharine Fitchlocke	June 11.
Mary of Portsmouth	July 2.
Mary Cooke	July 2.
Elizabeth Bannister	July 23.
John Draper	July 23.
Elizabeth Draper	July 23.
Andrew Raglin	July 23.
Benjamin Smith	Aug. 20.
Mary Warner	Aug. 20.
Mehitable Prince	Sept. 3.
Mehitable Gibson	Sept. 3.
Matthew Collins	Sept. 3.
Sarah Collins	Sept. 3.
Naomy Collins	Sept. 3.
Rebecca Collins	Sept. 3.
William Bridge	Sepr. 17.
Paul Langdon	Sepr. 17.
Elizabeth Windeline	Sepr. 17.
Abigail Hatherley a maid	Sepr. 24.
John Bradford a child	Sepr. 24.
John Davis	Oct. 8.
David Copp	Oct. 22.
James Gouch	Oct. 22.
Thomas Dyer	Nov. 12.
William Draper	Dec. 31.

1694.

TOWN.

Elizabeth of John & Constant Alcock born Apr. 3.
 Ann of Bozoon & Lydia Allin born Mar. 18.
 Nathaniel of Nathaniel & Hephshibah Alden born Aug. 6.
 Avis of John & Hannah Adams born Feb. 6.
 Eliz. of Willm & Phillis Arnell born Aug. 19.
 Enoch of Silence & Esther Allen born Nov. 11.
 Frances of Edward & Mary Bromfield born June 8.
 Mary of John & Isabella Barrell born June 30.
 Bathsheba of James & Elizabeth Babagge born July 22.
 James of John & Joanna Bennitt born Sept. 4.
 Jacob of John & Mercy Booker born Sept 3.
 William of Thomas & Mary Beetle born Oct. 10.
 Willm of Willm & Mercy Browne born Oct. 31.
 Robart of Robart & Mary Blabour born Dec. 5.
 Sarah of Saml & Sarah Barrett born Jan. 8.
 Thomas of Thomas & Margaret Berry born Mar. 19.
 Benja. of Thomas & Sarah Baker born May 7.
 Eliz. of Philip & Elizb. Bass born Apr. 23.
 Nathl of Nathl & Mary Baker born May 7.
 Lilington son of Peter & Mary Bowden born Sept. 10.
 John of George & Ruth Badcock born May 5.
 Joseph of Joseph & Hanah Billings born May 17.
 Samuel of Thomas & Mary Baker born June 26.
 Eliz. of Daniell & Mary Bassett born July 15.
 Anna of Benja. & Elizabeth Bream born July 23.
 Kathrine of Richard & Eliz. Bason born Aug. 12.
 William of Peter & Sarah Barbour born July 12.
 Mary of Isaac & Hannah Biscoon born July 1.
 Kathrine of Saml & Martha Burrell born Sept. 11.
 Gilbert of Gilbert Bant born Oct. 30.
 Mary of Joseph & Abigall Belknap born Oct. 15.
 Judith of Thomas & Judith Barnard born Oct. 23.
 Margaret of Thomas & Margaret Bomer born Jan. 29.

William of Thomas & Mehetable Cooper born Mar. 20.
 John of Ebenezer & Martha Clow born Mar. 1.
 Abigail of Richard & Abigail Cheever born Apr. 7.
 Mary of John & Martha Cornish born Mar. 22.
 Ann of George & Mary Clarke born Apr. 26.
 { George of Richard & Hannah Clarke born May 8.
 { John of Richard & Hannah Clarke born May 8.
 Nathan of Thomas & Sarah Cheveer born Mar. 16.
 Mary of Thomas & Sarah Curtess born Apr. 20.
 Stephen of Jonas & Mary Clay born May 16.
 Mary of Matthew & Mary Carey born May 15.
 Mary of Ebenezer & Elizabeth Chapin born July 1.
 Joseph of Joseph & Ann Cooke born July 30.
 Daniel of Daniel & Rebecca Collings born Aug. 31.
 Eliza. of Henry & Elizabeth Chamlet born Sept. 30.
 Ann of Thomas & Rebecca Clarke born Sept. 2.
 Richard of Samuel & Mary Chickley born Oct. 4.
 Samuel of Samuel & Mary Clarke born Oct. 11.
 Eliza. of William & Elizabeth Crow born Oct. 27.
 Thomas of Thomas & Priscilla Comings born Oct. 24.
 Peter of John & Elizabeth Coombs born Aug. 9.
 Eliza. of John & Hannah Carlile born Dec. 19.
 William of Andrew & Hannah Cuninghame born Nov. 17.
 Priscilla of John & Priscilla Clough born Dec. 18.
 Lydia of James & Mary Cornish born Nov. 22.
 Joseph of Charles & Sarah Dameere born Apr. 1.
 John of James & Elizabeth Dowell born Apr. 2.
 Thomas of Thomas & Jane Dean born Nov. 28.
 Eliza. of Samuel & Elizabeth Durham born Nov. 26.
 Edmund of Joseph & Hannah Days born Dec. 14.
 Esther of Richard & Sarah Draper born Jan. 13.
 Ann of Eliezer & Mary Darby born Feb. 1.
 Sarah of John & Sarah Dingly born Feb. 13.
 Mary of Moses & Ann Dry born Feb. 5.
 Thomas of Thomas & Ann Dean born Nov. 28.
 John of John & Mary Earle born July 21.
 Mary of John & Elizabeth Eustiss born May 11.
 Sarah of William & Sarah Eustiss born May 7.
 Mary of Edward & Phebe Eglington born Jan. 22.
 Mary of Benjamin & Elizabeth Emons born Mar. 25.
 Jonathan of Jonathan & Mary Evans born Apr. 6.
 Catherine of John & Catherine Eyre born July 20.
 Thomas of Thomas & Ann Eyre born July 13.
 Mary of Richard & Mary Fiefield born May 7.
 Alexander of Alexander & Mary Fulerton born June 16.
 Edward of Joseph & Rebecca Fuller born Aug. 1.
 Mary of Josias & Abiah Franklin born Sept. 26.
 Rebecca of Gibson & Rebecca Fawer born Oct. 9.
 Eliza. of Richard & Elizabeth Flood born Jan. 13.
 Susana of Henry & Susanna Faray born Mar. 11.
 John of William & Elizabeth Fox born July 29.
 Francis of Francis & Elizabeth Foxcraft born Jan. 26.
 Sarah of Henry & Sarah Franklin born May 15.
 Mary of Thomas & Mary Frost born Dec. 15.
 Joanna of James & Joanna Grant born July 20.
 Eliza. of John & Martha Goodwin born Sept. 9.
 Samuel of Bartholomew & Mary Green born Sept. 7.
 Henry of Robart & Mary Gibbs born Nov. 7.
 John of Anthony & Darcos Gretian born Feb. 6.
 Eliza. of ——— & Elizabeth Green born Feb. 10.
 Thomas of David & Martha Gwin born Dec. 13.
 Rachel of Christopher & Abigail Goffe born Mar. 2.
 Eliza. of Thomas & Experience Gould born Feb. 11.
 Mehitable of Obidiah & Elizabeth Gill born Jan. 1.

Duncan of Duncan & Margaret Garnock born Mar. 28.
 Elizabeth of John & Eliza. Greenogh born Nov. 13.
 John of John & Aniball Henderson born ———
 Richard of Richard & Elizabeth Harris born Mar. 2.
 Samuel of Eliezer & Mary Holioake born Mar. 21.
 Rebecca of William & Rebecca Hill born Apr. 18.
 Agnis of John & Aniball Henderson born May 8.
 Eliza. of Daniel & Joanna Harris born Mar. 5.
 Richard of Richard & Elizabeth Henderson born June 20.
 Margett of Hercules & Jane Hewitt born June 23.
 John of John & Margett Homes born Aug. 8.
 Mary of Samuel & Mary Hooper born Aug. 22.
 Anna of Henry & Mary Hill born Sept. 9.
 Rachel of John & Experience Haywood born July 20.
 Benjamin of Thomas & Rebecca Harris born ———
 Ann of Benja. & Mary Holeway born Jan. 28.
 John of Jacob & Mary Holeway born Dec. 9.
 Abigail of Heseciah & Abigail Henschman born Jan. 1.
 James of James & Bethiah Hewes born Aug.
 Ruhamah of Nicholas & Ruhamah Ingoldsby born May 8.
 Jonathan of William & Elizabeth Ireland born Jan. 5.
 Eliza. } of Richard & Sarah Jenkins born Mar. 5.
 Mary } of Richard & Sarah Jenkins born Mar. 5.
 Anna of John & Ruth Jepson born Apr. 9.
 Rebecca of William & Elizabeth Jarvis born May 22.
 John of John & Margaret Johnson born June 11.
 Nathanll of Christopher & Sarah Kilbee born Mar. 20.
 John of Moses & Margett Kenny born July 1.
 Henry of Henry & Elizabeth Kerby born Feb. 20.
 John of John & Mary Kneland born Nov. 14.
 Thomas of John & Lydia Kelton born Feb. 14.
 Jane of Thomas & Eliza. Kellen born Oct. 11.
 Peter of James & Ann Leblond born Jan. 1.
 William of Richard & Mary Lux born Mar. 1.
 Hannah of Peter & Hannah Leech born Nov. 14.
 Edward of Robert & Bridget Ladd born Oct. 10.
 Joseph of Thomas & Mercy Lazinby born Aug. 20.
 Rebecca of James & Rebecca Loyd born May 4.
 William of William & Susanna Milborn born Apr. 27.
 Joseph of Joseph & Hannah Mariner born Mar. 23.
 Mary of William & Olef Macloughlin born Mar. 22.
 John of John & Sarah Marshall born Mar. 22.
 Abigail of Cotton & Abigail Mather born June 14.
 James of Thomas & Mary Mellins born May 1.
 Margaret of Paul & Elizabeth Milner born Sept. 15.
 Sarah of James & Hannah Mirick born Oct. 11.
 Mary of Archibell & Sarah Mackgudy born Oct. 17.
 Dorcas of Thomas & Dorcas Marshall born May 17.
 Edmund of John & Mary Mountfort born Oct. 19.
 Nathaniel of Robert & Marya Mason born Oct. 25.
 Susanna of Daniel & Susanna Morey born Oct. 18.
 Isack of Samuel & Mary Marion born Nov. 8.
 James of Samuel & Ann Mattock born Sept. 4.
 James of John & Elizabeth Muligan born Dec. 4.
 Thomas of William & Rebecca Mann born Feb. 25.
 Mary of Christopher & Mary Monck born Mar. 26.
 Joseph of Joseph & Ann Marsh born Dec. 21.
 Mary of Edward & Sarah Martin born Mar. 14.
 Robert of Michell & Lydia Nowell born Aug. 22.
 Hannah of Thomas & Sarah Negus born Jan. 1.
 Joseph of Maybe servant to James Cornish (negro) born Feb. 18.
 Jenne of Secundas & Peggy (Negroes) born ———
 Rebecca of Timothy & Mary Nash born Feb. 13.
 William of John & Sarah Oliver born Nov. 5.

Margett of John & Marget Pratt born Mar. 1.
 Sarah of Benjamin & Elizabeth Pemberton born Mar. 8.
 Rachel of Thomas & Hannah Pecke born Nov. 28.
 Sarah of Alexander & Sarah Prinly born Feb. 13.
 Joseph of Edward & Elizabeth Procter born Feb. 20.
 Sarah of Mark & Faith Pintinton born Jan. 3.
 Stephen of Stephen & Elizabeth Palmer born Mar 2.
 Ann of Thomas & Mary Pratt born Feb. 11.
 Susanna of William & Mercy Parram born Mar. 14.
 William of Edward & Elizabeth Pell born May 11.
 Mercy of Samuel & Mary Pearse born Sept. 20.
 Hannah of Nathll & Hannah Purdue born Oct. 5.
 Benjamin of Benja. & Eliza. Quelch born Aug. 25.
 Ezechiell of Joseph & Susanna Rusell born May 6.
 Ennis of John & Annis Robinson born May 27.
 Edward of David & Eliza Robinson born Sept. 19.
 Eliza. of James & Elizabeth Rainer born Oct. 28.
 Jane of John & Mary Roberts born Oct. 14.
 William of William & Mary Ruck born Jan. 15.
 Eliza. of Joseph & Sarah Robinson born Feb. 20.
 Mary of John & Mary Russell born Apr. 13.
 Mary of Thomas & Rebecca Smith born Jan. 15.
 Mary of John & Elizabeth Stratford born Apr. 22.
 Eliza. of Daniel & Elizabeth Stodard born June 8.
 Joseph of Joseph & Ruth Shaw born June 24.
 Elizabeth of John & Mary Stevens born Mar. 29.
 Eliza. of Thomas & Margaret Savage born Aug. 1.
 Samuel of Rowlen & Ann Storey born Aug. 20.
 Nicholas } of John & Anibell Salsbury born Aug. 20.
 James } of John & Anibell Salsbury born Aug. 20.
 Joseph of Seth & Mehetable Smith born Oct. 12.
 Rebecca of Nicholas & Sarah Stoughton born Sept. 10.
 Sarah of Samuel & Hannah Sewell born Nov. 21.
 Joseph of Joseph & Elizabeth Scott born Nov. 23.
 Phineas of Henry & Purchase Spry born Dec. 5.
 Ann of Alexander & Rebecca Sears born Dec. 13.
 Richard of Richard & Sarah Sherin born Nov. 25.
 Margaret of John & Jane Smith born Jan. 28.
 Benjamin of Benjamin & Susanna Thaxter born Augt. 22.
 William of Samuel & Abigail Thorn born Dec. 23.
 John of John & Sarah Tenny born Jan. 12.
 Susanna of John & Mary Tucker born Jan. 25.
 Liddia of John & Hannah Tapper born Jan. 28.
 Mary of James & Mary Townsend born Feb. 11.
 John of Samuel & Sarah Tiley born Mar. 2.
 Maverick of George & Rebecca Thomas born Feb. 24.
 Eliza. of Isaac & Elizabeth Virgoose born May 27.
 Susanna of Andrew & Elizabeth Veach born Jan 19.
 Joseph of William & Charity Webb born Mar. 7.
 Hannah of Daniel & Hannah Ware born May 5.
 Michael of Michael & Elizabeth Willis born July 11.
 Maudlin of Robard & Lucey Ward born ———
 Eliza. of John & Humillis Williams born Oct. 14.
 Eliza. of Ebenezer & Deliverance Weeks born Oct. 25.
 John of John & Elizabeth Wakefield born Aug 14.
 George of Daniel & Mary Willard born Oct. 22.
 Edward of John & Abigail Wilson born Dec. 6.
 Joshua of Edward & Hannah Winslow born Feb. 12.
 Mary of William & Elizabeth Wheeler born Feb. 17.
 Mary of Samuel & Mary Ward born Nov. 27.
 Triphena of Thomas & Triphena Woodward born Jan. 30.

John Adams & Hannah Checkley were married by Rev. John Bayley Oct. 19.
 Joseph Adams & Elizabeth Hewes were married by Rev. James Allen May 3.

- Henry Adams & Martha Hewen were married by Rev. Cotton Mather Jan. 10.
 Matthew Armstrong & Margaret Halce were married by John Phillips Esq. June 7.
 Thomas Belknap & Jane Cheeney both of Cambridge were married by Saml. Sewall Esq. J. Pac. Mar. 6.
 Samuel Barrat & Sarah Manning were married by Rev. James Allen Mar. 8.
 William Brown of Salem & Rebecca Bayley of Boston were married by Rev. John Bayley Apr. 26.
 Jabez Beers & Elizabeth Barber both of Watertown were married by Rev. John Bayley. May 17.
 Robert Bronsdon & Hannah Bream were married by Rev. Cotton Mather Apr. 12.
 Benjamin Bream & Eliza Clemy were married by Rev. Cotton Mather May 24.
 William Brown & Mercy Jacklin were married by Rev. James Allen Oct. 29.
 John Banks & Mehitabel Mattox were married by Rev. Samuel Willard Aug. 29.
 John Beer & Mary Eades were married by Rev. Saml. Willard Sept. 21.
 Theophilus Burrell of Lyn & Lydia Gethercole of Boston were married by Rev. Cotton Mather July 5.
 Titus Brooks & Eliza Noaks were married by Samuel Sewall Esq. J. Pac. Nov. 20.
 Nathaniel Beedle & Eliza Sharp were married by Rev. Thomas Cheever Jan. 30.
 Benjamin Bream & Eliza Clemmy were married by Rev. Cotton Mather May 28.
 David Copp & Patience Short were married by Rev. James Allen Dec. 27.
 Edward Camden & Ruth Pasco were married by Rev. Saml. Willard Sept. 25.
 Mongo Crawford & Susanna Kennet were married by Rev. Saml. Willard Jan. 29.
 John Colman & Judith Hobbey were married by Rev. Cotton Mather July 19.
 John Cunniball & Lydia Beighton were married by Rev. Cotton Mather Nov. 2.
 John Coney & Mary Clark were married by Jer. Dummer Esq. Nov. 8.
 Samuel Daniel & Deborah Ford were married by Saml. Sewall Esq. J. Pac. Mar. 15.
 Edward Drinker & Mary Emmons were married by Rev. James Allen Mar. 6.
 John Dyer & Hannah Morton were married by Rev. Saml. Willard June 6.
 Joseph Dowding & Ann Sands were married by Rev. Cotton Mather Sept. 21.
 John Dinsdale & Hannah Banford were married by Rev. Thomas Cheever Sept. 19.
 Samuel Earl & Lydia Flood were married by Rev. Saml. Willard Apr. 20.
 Benja. Emmons & Mary Amory were married by Rev. Saml. Willard Sept. 10.
 Benjamin Easterbrook & Abigail Willard were married by Rev. Saml. Willard Nov. 29.
 Roger Earl & Lydia Travise were married by Rev. Cotton Mather Oct. 25.
 John Edwards & Sibella Newman were married by Saml. Sewall Esq. J. Pac. Oct. 29.
 John Evans & Mary Clap were married by Rev. Thomas Cheever Jan. 7.
 Thomas Fitch & Abiel Daunforth were married by Rev. Saml. Willard Apr. 12.
 Joseph Gallop & Elizabeth Dwight were married by Timothy Dwight Esq. Mar. 1.
 Philip Goodwin & Eliza. Luxford both of Cambridge were married by Saml. Sewall Esq. J. Pac. June 14.
 Thomas Gray of Plymouth & Anna Little of Marshfield were married by Rev. John Bayley July 3.
 Benja. Gallop & Hannah Sharp were married by Rev. Samuel Willard Nov. 1.
 Richard Gridley & Hannah Dawes were married by Rev. Samuel Willard Feb. 27.
 Peter Grant & Sarah Scarlet were married by Rev. Cotton Mather July 25.
 Richard Gull & Rebecca Hill were married by Rev. Cotton Mather Jan. 24.
 Terrence Henley & Eliza. Weeks were married by Rev. James Allen Apr. 2.
 Thomas Hunt & Susanna Saxton were married by Rev. Cotton Mather June 21.
 Robert Hawkins & Esther Hughs were married by Rev. Saml. Willard June 7.
 Thomas Hall & Hannah Paine were married by Rev. Saml. Willard Feb. 15.
 Erasmus Harrison & Mary Rouse were married by Rev. Cotton Mather Jan. 3.

James Jarvise & Penelope Waters were married by Rev. James Allen July 18.
 George Jefferyes of Piscattiqua & Hannah Porter of Boston were married by Rev. John Bayley Nov. 28.
 Eben. Jones & Lydia Norcot both of Dorchester were married by Rev. Saml. Willard May 17.
 Christopher Killiowe & Eliza Foster were married by ye Parson of ——— May 28.
 Ebenr. Liscombe & Mehitable Curtice were married by Rev. Cotton Mather Oct. 18.
 Ebenr. Lowle & Elizabeth Shaler were married by Rev. James Allen Jan. 30.
 John Levensworth & Mary Brown were married by Rev. Samuel Willard Aug. 21.
 William Mansell & Rebecca Jacobson were married by Saml. Sewall Esq. J. Pac. June 29.
 Henry Mountfort & Sarah Dasset were married by Rev. James Allen Sept. 27.
 Joseph Marshall & Mercy Short were married by Rev. Cotton Mather July 29.
 Timothy Nash & Mary Foster were married by Rev. James Allen Apr. 2.
 George Negro & Ruth Negro were married by Rev. John Bayley Aug. 14.
 Thomas Owen & Eliza Chinny were married by Rev. James Allen Sept. 10.
 Francis Pumery & Mehitabel Orchard were married by Mr. Emblim Bapt. Minis. Feb. 7.
 Michael Perry & Joanna Breck were married by Rev. James Allen July 12.
 William Payn & Mary Taylor were married by Rev. James Allen Oct. 11.
 John Parminter & Eliza East were married by Rev. James Allen Nov. 1.
 Matthew Pool & Sarah Blake were married by Rev. John Bayley May 29.
 Thomas Perkins & Remember Woodman were married by Rev. Cotton Mather July 26.
 William Porter & Eliza Gale were married by Rev. Cotton Mather Jan. 31.
 Elias Purrington & Sarah Orris were married by Mr. James Sherman July 7.
 William Ruicks & Mary Ellise were married by Rev. James Allen Mar. 29.
 Henry Roads & Eliza Paul were married by Rev. Thomas Cheever Feb. 27.
 Winsor Sandey & Mehetabel Bull were married by Samuel Sewall Esq. J. Pac. Feb. 12.
 John Stevens & Grace Gammon were married by Rev. Cotton Mather June 6.
 Robert Smith & Deborah King were married by Rev. Saml Willard July 12.
 Joseph Snelling & Rebecca Adams were married by Rev. Samuel Willard July 19.
 John Street & Sarah Wing were married by Rev. Saml. Willard Sept. 10.
 Benjamin Snelling & Jamina Andrews were married by Rev. Saml. Willard Jan. 29.
 William Sutton & Mary Johnson were married by Rev. Saml. Willard Jan. 31.
 Abijah Sherman & Sarah Franks were married by Rev. Cotton Mather July 12.
 Nicholas Sparry & Sarah Sams were married by Rev. Cotton Mather Aug. 20.
 Samuel Sarson & Ann Clay were married by Rev. Cotton Mather Jan. 3.
 John Sweeting & Elinor Evans were married by Saml. Sewall Esq. J. Pac. Feb. 7.
 Peter Townsend & Mary Welcome were married by Rev. James Allen Nov. 15.
 Francis Thresher & Eliza Hicks were married by Rev. John Bayley Aug. 9.
 Joseph Tounsand & Judith Woodman were married by Rev. Cotton Mather Aug. 9.
 James Townsend & Rebecca Mosely were married by Parson Hatton Jan. 22.
 Phillip Villarock & Eliza Wilcot were married by Rev. James Allen May 3.
 John Vial & Mary Adams were married by Rev. Cotton Mather Dec. 27.
 Josiah Wilcot of Salem & Mary Freek of Boston were married by Rev. James Allen May 1.
 Jonathan Whitaker & Sarah Toothaker both of Chelmsford were married by Rev. James Allen Nov. 15.
 John Wiborn of Scituate & Esther Ripple of Boston were married by Rev. James Allen May 10.
 Benja. Watson & Ann Drue were married by Rev. John Bayley Sept. 15.
 John Wiat & Hannah Garret were married by Rev. John Bayley Feb. 7.
 Benedict Webber & Sarah Rice were married by Rev. Cotton Mather May 14.
 James Williams & Sarah Salisbury were married by Rev. Cotton Mather Aug. 7.
 Thomas Warren & Sarah Fitch were married by Rev. Cotton Mather. Dec. 14.

Moses Way & Sarah ——— were married by Mr. Thomas Cheever Apr. 5.
 William Young & Sarah Whiteache were married by Rev. Cotton Mather
 Oct. 11.

William of Joseph Allen Died March 17.
 Ann of Bozoon & Lidia Allen Died July 26.
 Eliza daugt. of Willm Arnold died Sept. 8.
 John of Richd & Elizabeth Bason Died June 27.
 Samuel of Edward Barrells Died Aug. 19.
 Willm. of William and Mary Bennet Died Novr 4.
 Willm. of Thomas and Mary Beetel Died Octor 11.
 Tho. of Thomas and Eliza. Blore Died Janr. 2.
 Samll of Samll and Mary Bucknell Died Janr. 29.
 Darcis daugt. of Nicholas Bow died July 20.
 Mary daugt. of Henry Cole Died Aprill 12.
 Sarah wife of John Conny Died Aprill 17.
 Eliza. daugt. of Ebin. Chapin Died Aug. 23.
 Rachell of John & Hannah Carlile Died Aug. 7.
 Willm of Willm & Elizabeth Crow Died Aug. 8.
 Martha Coy Died Augt. 14.
 Peter of John & Elizabeth Coombs Died Aug. 19.
 Philip of Edward & Sarah Cruft Died July 14.
 John of Ebinezer Clough Died Decr. 5.
 John Downing died Aprill 29.
 Sarah of Thomas and Hanah Davis Died July 25.
 Edmun of Joseph Dayes Died Janr. 21.
 Mercy Dowden died March 11.
 Mary of John and Elizabeth Eustis died July 7.
 John of John and Mary Endicutt died Aug. 8.
 Deborah Edmunds died Octo. 5.
 William Euestis died Novr. 27.
 Hanah wife of James Gouge died March 15.
 Christopher of Christopher & Abigall Goffe died June 8.
 Abigall wife of Richard Gridly Died Aug. 18.
 Joseph of Edward & Elizabeth Goffe Died Decemr 10.
 Martha daugt. of William Hawkins died Sept. 16.
 Mary wife of Francis Hudson died Sept. 25.
 John Lowell died June 7.
 John Mayn Died March 27.
 John Mershall Died Apr. 18.
 Mary of Tho. and Elizabeth Merier Died Aug. 3.
 William Milbourn Died Aug.
 James of Samuell Matox Died Sept. 3.
 Relect of Patrick Ohogen Died June 5.
 Prisila daughter of Regnall Odall Died July 27.
 Nathll of Nathll & Hanah Parkeman Died Aprill 27.
 Abigall of Tho. and Mary Philips Died Augt 6.
 Gillam of Samll and Hanah Philips Died Octor 17.
 Sarah of Willm & Deborah Philips Died Sept. 9.
 Hanah wife of Thomas Pecke Died Decr 7.
 Jane of Daniell & Dorcas Peck died Janr. 23.
 Elizabeth wife of Benjamin Quelch Died Sept. 4.
 James of James & Elizabeth Raymer Died May 12.
 Hanah of John & Jane Rayly Died Augt 15.
 Mary of John and Ann Smith Died July 30.
 Ann Stephens died Augt 15.
 Aniball wife of John Salisbury Died Sept. 7.
 Eliza. of Thomas & Margaret Savage dyed Dec. 19.
 Hanah of Samuel & Mary Tiley dyed March 15.
 Wife of Timothy Thornton died March 23.
 Benjamin Taylor died Augt 3.
 John of Tho. and Miriam Tyler Died Janr. 3.
 Samll of Samuell and Mary Veazy died Apr. 17.
 Jonathan of Jonathan & Hanah Waldo Died Augt 18.

Sarah of Samll and Eunice Willard Died July 28.
 Mehitabell Wife of Peter Welcome died Octor 23.
 Edward of John and Abigall Wilson Died Janr. 20.
 Nathll of Edward and Sarah Watkins died Decr 31.

FIRST CHURCH.

Thomas Savage	Jan. 21.
Nathaniel Reynolds	Jan. 21.
Mary Gee	Jan. 28
Elizabeth Nuby	Feb. 4.
Mary Butler	Feb. 25.
Richard Harris	Mar. 4.
Anne of Bosone Allin	Mar. 25.
Abigail Chevers	Apr. 8.
Mary Moseley aged 17 years	Apr. 29.
Rebecca Loyde	May 6.
Ezekiel Russell	May 6.
Mary Eustace	May 13.
Job Fisher	June 17.
David Langdane	June 17.
Abigail Langdane	June 17.
Joseph Langdane	June 17.
Benjamin Langdane	June 17.
John Cooke	July 8.
Mary Cooke	July 8.
Sarah Cooke	July 8.
Thomas Cooke	July 8.
Michael Willis	July 15.
Sarah Cary	Aug. 26.
Benjamin Thaxter	Aug. 26.
Elizabeth Ranger	Sept. 2.
Benjamin Quelch	Sept. 9.
Rebecca Stanton	Sept. 16.
Mercy Pierce	Sept. 23.
John Collins	Oct. 7.
Joseph Marriner	Nov. 4.
Sarah Miricke	Nov. 11.
Mary Ward	Nov. 25.
John Banister	Dec. 2.
Rachel Pecke	Dec. 2.
James Mattocks	Dec. 9.
Priscilla Clow	Dec. 23.
William Thorne	Dec. 23.

1695.

TOWN.

Eliz. of Willm & Mary Alden born Mar. 10.
 Eliz. of Joseph & Elizabeth Adams born Mar. 27.
 Ebenezer of Joseph & Ann Allen born May 8.
 Deliverance of John & Grace Alletset born Oct. 12.
 Thomas of Benjamin & Mary Alford born Oct. 6.
 Hannah of Barachiah & Abigall Arnold born Dec. 20.
 Joseph of John & Hannah Adams born Dec. 20.
 Mary of John & Hannah Adams born Dec. 20.
 Eliz. of William & Phillis Arnel born Feb. 4.
 Joseph of Henry & Martha Adams born Aug 19.
 John of James & Rachell Barry born Oct. 12.
 Nicholas of Joseph & Abigall Belknap born Oct. 15.
 Sarah of James & Elizabeth Babagge born Oct. 15.
 Willm of Henry & Abigall Brightman born Feb. 1.
 Mary of John & Elizabeth Buchanan born Dec. 2.
 Jarvis of Peter & Mary Bowden born Feb. 24.
 John of Thomas & Mary Bedell born Feb. 28.

Mary of Joseph & Rebecca Brisco born Apr. 7.
 Edward of Edward & Mary Brumfield born Nov. 5.
 Hezekiah of Peter & Elizabeth Buttler born June 10.
 William of Nathl & Mary Baker born July 2.
 Zacheriah of Philip & Sarah Basse born July 8.
 George of George & Abigall Beard born July 22.
 Thomas of Thomas & Dorothy Bennet born July 27.
 Robart of William & Mercy Brown born Aug. 20.
 Isaac of Isaac & Hanah Bisco born Aug. 23.
 Thomas of Edward & Mary Brattell born Sept. 17.
 Eliz. of Edward & Hannah Ball born Sept. 27.
 Eliz. of Samll & Martha Burrell born Sept. 22.
 Hanah of Edward & Mary Boylston born Sept. 30.
 Sarah of William & Sarah Burrage born Sept. 24.
 Samuel of Samuel & Sarah Boyles born Oct. 4.
 Abigall of William & Mary Barnsdell born Oct. 26.
 Mary of George & Mary Bearston born Nov. 1.
 Timothy of Edward & Mary Bartells born Dec. 2.
 Eliz. of John & Sibillo Barrell born Nov. 21.
 Thornton of Samll & Sarah Barratt born Nov. 6.
 John of John & Eliz. Buckanan born Dec. 25.
 William of John & Mercy Booker born Dec. 24.
 Lydia of John & Sarah Balston born Nov. 16.
 Mary of Josiah & Mary Baker born Jan. 12.
 Deborah of Richard & Ann Colicutt born Mar. 4.
 William of Samuel & Ruth Clough born Mar. 9.
 Martha of John & Sarah Clarke born Mar. 25.
 Priscilla of William & Lydia Clow born Apr. 18.
 Deborah of John & Sarah Cunabell born May 5.
 Martha of Ebenezer & Martha Clough born May 20.
 Sarah of John & Ruth Cooch born Aug. 11.
 Eliza. of John & Mary Cuttler born Sept. 7.
 Joanna of William & Ann Copp born Sept. 7.
 John of John & Priscilla Chadwick born Oct. 1.
 Mary of Job & Joanna Chamberling born Nov. 30.
 Mary of John & Elizabeth Coombs born Nov. 25.
 Mary of John & Mary Conney born Nov. 7.
 David of David Crouch born ———
 Eliza. of John & Sarah Carey born Jan. 11.
 Eliza. of John & Mary Cambell born Feb. 6.
 Sarah of Edward & Sarah Cruft born Oct. 6.
 Ann of Matthew & Mary Cary born Feb. 10.
 Samuel of Samuel & Mary Chickley born Feb. 11.
 Martha of George & Mary Clarke born Feb. 18.
 Susanna of Duncan & Susanna Cambell born Feb.
 John of Paul & Mary Collings born Sept. 20.
 Eliza. of Christor. & Tamzine Capril born June 16.
 Edward of Edward & Ann Durant born Mar. 2.
 John of Samuel & Deborah Daniel born Mar. 20.
 Abigail of Benja. & Hannah Dyar born Apr. 7.
 Joseph of Sampson & Sarah Dewer born Apr. 3.
 Samuel of Jacob & Susanna Davis born May 25.
 Samuel of Samuel & Mary Dyer born May 23.
 Martha of Charles & Sarah Demeret born June 6.
 Leonard of Joseph & Ann Dowden born July 1.
 Mary of Robert & Jane Davis born Aug. 29.
 Jane of William & Mary Davis born Sept. 29.
 Mary of John & Rachel Draper born Oct. 11.
 James of Henry & Abigail Dawson born Feb. 7.
 Hannah of John & Hannah Dinsdill born June 10.
 Daniel of Daniel & Dorothy Deusberry born Mar. 18.
 Eliza. of Philip & Eliza. Delarock born Dec. 2.
 Eliza. of Benja. & Mary Emms born Mar. 31.
 Bagworth of John & Mary Endicutt born Apr. 2.

Aniball of Adam & Elizabeth Eve born June 20.
William of William & Elizabeth Endicutt born Dec. 23.
Bethiah of John & Catharine Eyre born July 24.
Joseph of William & Elizabeth Endicutt born Nov. 28.
Samuel of Robert & Bethiah Eames born Feb. 24.
Mary of Thomas & Abiell Fitch born Apr. 21.
Esther of William & Esther Fratingham born Oct. 13.
Eliphalet of Benjamin & Mary Fitch born Oct. 29.
Thomas of Joseph & Rebecca Fuller born Dec. 11.
John of Henry & Sarah Franklin born Feb. 26.
Elizabeth of Nathl & Elizabeth Green born Apr. 10.
Mary of Thomas & Lydia Gilbert born May 20.
William of Elizabeth & William Gill born Apr. 6.
Sarah of Thomas & Sarah Gwin born Apr. 21.
Eliza. of Joseph & Jane Gleden born Aug. 1.
John of John & Susanna Garrett born Aug. 12.
Eliza. of James & Elizabeth Glass born Nov. 6.
Hannah of Benjamin & Hannah Gallop born Sept. 20.
John of Richard & Hannah Gridley born Nov. 23.
Samuel of Samuel & Susanna Grice born Jan. 24.
Eliza of Samuel & Eliza. Gardner born Feb. 4.
John of John & Lydia Gerish born Jan. 22.
William of Richard & Rebecca Gull born Jan. 16.
Ann of Thomas & Bridget Hayes born Mar. 1.
Joanna of Thomas & Mary Hunt born Mar. 29.
James of Nathaniel & Hannah Halsey born April 10.
Nathaniel of Nathaniel & Anna Henschman born Mar. 31.
Samuel of Samuel & Deborah Hood born Aug. 10.
Lydia of Thomas & Lydia Hatherly born Oct. 20.
Ebenezer of William & Ann Holoway born Nov. 15.
Eliza. of Nathl & Sarah Holms born Sept. 15.
Eliza. of Richard & Elizabeth Harris born Dec. 24.
Archelus of Archelus & Jane Hewitt born Jan. 27.
William of William & Mary Hough born Feb. 1.
Charles of Torrence & Elizabeth Henly born Apr. 13.
Sarah of Eliezer & Mary Holoake born Feb. 2.
Nathaniel of Nathaniel & Eliza. Hatch born Oct. 22.
Alis of Henry & Lydia Ingraham born Aug. 7.
Eliza. of Thomas & Priscilla Jackson born Mar. 10.
John of James & Penelope Jarvis born Mar. 2.
Sarah of David & Elizabeth Jefferies born May 4.
Rebecca of John & Mary Jarvis born Aug. 23.
Emme of Thomas & Hannah Jepson born Feb. 9.
David of David & Priscilla Johnson born Dec. 15.
John of Nathl & Joanna Kettell born Mar. 26.
Richard of John & Rebecca Kilbee born Jan. 2.
Mary of Isaac & Sarah Lorin born Mar. 26.
John of William & Elizabeth Lavis born Sept. 3.
Sarah of Solomon & Sarah Legeree born July 18.
Eliza. of Joseph & Elizabeth Lobdell born July 19.
Mary of Robert & Mary Lash born Nov. 25.
Eliza. of Samuel & Mehitable Lilly born Feb. 29.
Martha of Thomas & Mehitable Lincoln born July 18.
Joseph of John & Abigail Mulberry born June 10.
Henry of Thomas & Elizabeth Messenger born Feb. 28.
Sarah of Francis & Martha Marshall born Feb. 11.
John of Joseph & Hannah Maylam born Jan. 14.
Eliza. of Edmund & Elizabeth Mountfort born Apr. 25.
Mary of Joseph & Mercy Marshall born May 20.
Dorcas of Alexandr & Dorcas Miller born May 29.
William of William & Ann More born July 28.
Mary of Philip & Mary Miritt born Aug. 31.
Nathaniel of Joseph & Hannah Mariner born Oct. 9.
Duncan of Duncan & Mary Mackfarland born Oct. 22.

Benjamin of John & Sarah Mason born Dec. 23.
 Sarah of John & Sarah Mills born Dec. 9.
 Mary of Edward & Sarah Martine born Mar. 14.
 Sarah of Samuel & Ruth Marshall born Oct. 11.
 Child Alis Richard of Samuel & Peggee (Negro) born Mar. 15.
 Eliza. of Richard & Elizabeth Newland born Oct. 12.
 James of Nathl & Rest Newell born Dec. 29.
 Alis of John & Susanna Nichols born Aug. 18.
 Samuel of David & Temperance Norton born Jan. 10.
 Sarah of William & Sarah Owen born Feb. 26.
 Samuel of Rignall & Priscilla Odall born Aug. 20.
 Hannah of William & Sarah Paine born Apr. 21.
 Remember of John & Sarah Parker born May 2.
 Edward of Thomas & Remember Perkins born May 1.
 William of John & Elizabeth Peck born July 27.
 Nicholas of Thomas & Mary Phillips born July 25.
 Sarah of Elias & Sarah Purington born Aug. 13.
 Thomas of Thomas & Margett Powell born Aug. 28.
 Rachel of John & Jane Potter born Oct. 20.
 Abigail of John & Sarah Pimm born Oct. 10.
 Gillam of Samuel & Hannah Phillips born Oct 4.
 Benjamin of Robert & Hannah Price born Oct. 20.
 Samuel of William & Elizabeth Parkeman born Nov. 19.
 Eliza. of Michael & Johanna Perry born Sept. 6.
 William of William & Mary Pain born Nov. 23.
 Simon of John & Experience Roberts born May 21.
 John of John & Rebecca Ransford born May 15.
 Charles of Charles & Mary Robarts born Oct. 15.
 Sarah of Joseph & Mary Russell born June 19.
 Mary of Ralph & Martha Ransford born June 21.
 John of William & Elizabeth Randall born June 10.
 Stephen of Thomas & Martha Rayper born June 14.
 Joseph of Joseph & Susanna Russell born Oct. 24.
 Martha of George & Elizabeth Robinson born Jan. 7.
 John of Sampson & Mary Shore born Mar. 25.
 Joseph of Joseph & Hannah Snelling born Apr. 20.
 Jonathan of Simeon & Mary Stodard born May 4.
 William of Henry & Elizabeth Sharpp born Mar. 24.
 Eliza. of Cyprean & Elizabeth Southwick born May 2.
 Margaret of Robert & Deborah Smith born June 1.
 Robert of Nathl & Elizabeth Shannon born June 7.
 William of John & Ann Smith born July 10.
 Samuel of Joseph & Hannah Simson born Aug. 9.
 John of Benjamin & Joanna Stone born Aug. 12.
 Sarah of Robert & Esther Saunderson born Aug. 27.
 Hannah of Winsor & Mehitable Sandy born Sept. 6.
 James of James & Edy Steward born Oct. 30.
 Habijah of Thomas & Mehitable Savage born Oct. 22.
 Mehitable of Seth & Mehitable Smith born Oct. 27.
 Jane of John & Jane Snelling born Nov. 9.
 Elizabeth of Joseph & Margaret Soaper born Dec. 18.
 Francis of Francis & Mary Smith born Jan. 13.
 Brigett of William & Elizabeth Straton born Jan. 19.
 Eliza. of John & Mary Sunderland born Feb. 7.
 Jemima of Benjamin & Jemina Sneling born Mar. 22.
 Ebenezer of Fearnot & Bethiah Seele born May 19.
 John of John & Lydia Selly born Feb. 8.
 John of Anthony & Sarah Thorning born May 26.
 Samuel of James & Rebecca Townsend born Aug. 30.
 John of John & Miriam Tyler born June 11.
 Mary of John & Martha Twing born Sept. 4.
 Margaret of Richard & Margett Tewell born Feb. 6.
 John of Nicholas & Hannah Trevice born Mar. 7.
 Mercy of Benja. & Mercy Tout born May 5.

Eunise of Edward & Abigail Tuttle born Jan. 30.
 Sarah of James & Rebecca Taylor born May 19.
 Abigail of Philip & Abigail Voden born Mar. 1.
 Edward of Christopher & Joanna Vale born Apr. 7.
 Samuel of John & Sarah Vickers born Aug. 7.
 Rebecca of Thomas & Hannah Verring born Jan. 17.
 Sarah of Francis & Mary Whitman born Mar. 3.
 Samuel of Samuel & Mary Warkman born Mar. 15.
 Lydia of James & Elizabeth Worth born Apr. 4.
 Temperance of Experience & Elizabeth Willis born Apr. 8.
 Sarah of John & Elizabeth Walley born Apr. 27.
 Sarah of Andrew & Susanna Willis born May 4.
 Margaret of John & Martha Wharfe born May 15.
 Eliza. of James & Sarah Williams born May 15.
 Eunice of Samuel & Eunice Willard born June 16.
 Christopher of Christopher & Mary Weeks born Sept. 24.
 Susanna of Timothy & Susanna Wodsworth born Oct. 16.
 Elias of Daniel & Hannah Weare born Oct. 20.
 John of John & Eliza Wakefield born Sept. 19.
 Daniel of Samuel & Elizabeth Wentworth born Nov. 21.
 Mary of Benjamin & Susana Worthlake born Nov. 21.
 Hannah of Ebenezer & Deliverance Weeks born Jan. 5.
 Allis of Thomas & Sarah Wheeler born Feb. 7.
 Hannah of William & Ann Wheeler born Mar. 18.
 Mary of Daniel & Mary Willard born Nov. 16.

Jeremiah Allen & Mary Caball were married by Rev. James Allen June 25.
 Edward Boston & Mary Dasset were married by Rev. James Allen May 27.
 William Briggs & Rebecca Dyer were married by Rev. John Bayley June 10.
 John Cleverly & Sarah Cowel were married by Jer. Dummer Esq. Oct. 17.
 Jonathan Elliston & Eliza. Wesendonck were married by Rev. John Bayley June 27.
 Robert Edmunds & Rebecca Pasmore were married by Rev. Cotton Mather Mar. 26.
 Robert Fitchue & Hannah Man were married by Rev. John Bayley Apr. 4.
 Samuel Gray of Salem & Susanna Baster of Boston were married by Rev. Saml Willard Apr. 15.
 Nathani Hubbert & Mary Stowel both of Hingham were married by Rev. James Allen May 31.
 Robert Hannah & Hannah Matson were married by Rev. John Bayley May 2.
 William Harrise & Sarah Crisp were married by Rev. Saml Willard Apr. 11.
 Andrew Hethrington & Hannah Briggs were married by Rev. Saml Willard Apr. 11.
 Thomas Hall & Hannah Payn were married by Mr. Saml Willard Feb. 14.
 Thomas Jacobs & Mary Dinnis were married by Rev. Cotton Mather Mar. 21.
 Thomas Joy & Elizabeth Stoddard were married by Samuel Sewall Esq. J. Pac. Mar. 6.
 Roger Kilcup & Abigall Dudson were married by Mr. James Allen July 4.
 Samuel Letherbee & Lydia Biss were married by Jeremiah Dummer Esq. Nov. 15.
 Samuel Moodey & Esther Green were married by Rev. James Allen Apr. 4.
 John Monsir of Charlestown & Mary Mirick of Boston were married by Rev. James Allen Apr. 24.
 John Manning & Joanna Lash were married by Rev. Cotton Mather May 9.
 Duncan Maycome & Mary Smith were married by Mr. Saml Willard Apr. 18.
 Elias Maverick & Sarah Smith were married by Mr. John Bayley Feb. 3.
 Richard Roe & Margery Benbow were married by Rev. Cotton Mather June 20.
 Samuel Sprague of Wooborn & Loise Burrell of Lyn were married by Rev. James Allen June 5.
 John Simson & Rely Holmes were married by Mr. Samuel Willard June 4.
 Richard Thomas & Mary Mason were married by Mr. John Baley July 16.
 Jonathn Townsend & Elizabeth Walton were married by Mr. Jonathan Pearpoint Mar. 22.

James Walcom & Eliza. Hopkins were married by Rev. James Allen May 27.
 John Whitehart & Martha Ladd were married by Rev. James Allen June 6.
 Joseph Wheeler & Jane Hodges were married by Mr. Emblim ye Baptist
 Minister July 1.

Deacon Henry Allin died Janry 9.
 Robart of Robart and Mary Blaber Died March 7.
 George Badcock died Sept. 2.
 John of Thomas and Mary Beetel Died Decemr 22.
 Eliza. of Samuel and Mary Chickley Died June 6.
 Tho. of Thomas & Prisilla Cumins Died June 2.
 Prisilla wife of Jonathan Elason Died March 5.
 Wife of William Fuller died ———.
 Mary of Thomas & Abiell Fitch Died May 11.
 Sarah of Thomas and Sarah Gwin Died Decr. 7.
 Judith Hull died June 22.
 Rachell wife of Thomas Harwood died ———.
 Elizabeth Harris died Sept. 17.
 Ruth wife of John Jepson died Octor. 17.
 Thomas of John & Lidia Kelton died May 9.
 Jenne of Secundas Pegges — Negro Died Febr. 26.
 Edwd. of Tho. and Remember Perkins Died May 2.
 Frances Wife of William Parram Died Sept. 3.
 Marget of Robt & Marget Smith Died June 8.
 John of Sampson & Mary Shoar Died July 17.
 John of John & Elizabeth Wakefield Died Mar. 13.
 Eliza. of Ebin. and Deliverance Weekes Died Apr. 5.
 Elizabeth daughter of Sampson Waters Died July 5.
 Robart Williams died Augt. 25.
 Edward of Samll & Elizabeth Wentworth died July 24.

FIRST CHURCH.

Hannah Negroes (Negus)	Jan. 6.
John Tenney	Jan. 13.
Sarah Barrett	Jan. 13.
William Rucke	Jan. 20.
Jane Pecke	Jan. 27.
Edward Tucker	Feb. 17.
Elizabeth Tucker	Feb. 17.
Christopher Clarke	Feb. 24.
Sarah Clarke	Feb. 24.
Sarah Ashley	Feb. 24.
Henry of Thomas Messenger	Mar. 3.
Elizabeth Jackson	Mar. 10.
Jonathan Cawley	Mar. 10.
John Daniel	Mar. 24.
Abigail Duer	April 7.
Joseph Dyer	April 7.
Abigail Payne	April 7.
Elizabeth Greene	April 14.
Temperance Willis	April 14.
Richard White	June 16.
Abiel Eves	June 23.
William Pecke	July 28.
John Arnold	Aug. 4.
Alice Ingram	Aug. 11.
Sarah Cooke	Aug. 11.
Rachel Proctor	Sept. 8.
Mary Twinge	Sept. 15.
Mary Cony	Sept. 22.
Thomas Hatherly Junr.	Sept. 29.
Nathaniel Mariner	Oct. 6.
Mary Draper	Oct. 13.

Lydia Hatherly
 Nabia Savage
 Joseph Russell
 Mary Combs
 Anne Allin
 Samuel Waldo
 Elizabeth Harris

Oct. 20.
 Oct. 27.
 Oct. 27.
 Nov. 10.
 Dec. 1.
 Dec. 22.
 Dec. 29.

1696.

TOWN.

Mary of Jeremiah & Mary Allen born Apr. 7.
 Mary of Matthew & Margaret Armstrong born May 19.
 Jonathan of Jonathan & Rebecca Adams born Feb. 6.
 Sarah of Edward & Mary Ashley born Feb. 22.
 Sarah of John & Deborah Burnet born Feb. 21.
 Jacob of Francis & Frances Backit born Aug. 14.
 Anna of Thomas & Lydia Barnes born Oct. 8.
 John of Oliver & Gertrade Berry born Feb. 4.
 Isaac of Richard & Eliz. Bason born Jan. 18.
 Nathl of Thomas & Sarah Baker born Feb. 16.
 Eliza. of Ebenezer & Elizabeth Chaplin born Mar. 2.
 John of Francis & Sarah Cole born Mar. 27.
 Sarah of Samuel & Sarah Clarke born Mar. 30.
 Eliza. of Jonas & Mary Clay born May 12.
 Susanna of Samuel & Susanna Colings born July 6.
 Marget of William & Elizabeth Crow born May 26.
 Marget of Thomas & Deborah Chushing born July 15.
 Daniel of Richard & Abigail Cheever born Aug. 8.
 Mary of Henry & Elizabeth Chamlet born Sept. 5.
 Sarah of Thomas & Priscilla Comings born Sept. 15.
 Jeremiah of Jeremiah & Judith Cushing born Oct. 8.
 Rebecca of Daniel & Rebecca Collings born Sept. 18.
 John of John & Mary Coleworthy born Sept. 18.
 Sarah of William & Lydia Clough born Nov. 9.
 Mary of James & Mary Cock born Nov. 3.
 Eliza. of John & Elizabeth Clow born Nov. 2.
 Ann of Matthew & Naomi Collins born Dec. 30.
 Abraham of Daniel & Elizabeth Champanell born Sept. 30.
 Anna of John & Mary Conny born Jan. 23.
 John of John & Elizabeth Cronenschild born Jan. 19.
 John of John & Judith Coleman born Feb. 27.
 Jeremiah of John & Ruth Center born Feb. 15.
 Joshua of John & Hannah Doan born Mar. 5.
 Sarah of Joseph & Hannah Dayes born May 21.
 Jane of Thomas & Jane Dean born June 17.
 William of William & Susanna Denis born July 4.
 Rebecca of Richard & Sarah Draper born July 20.
 Marget of Benja. & Hannah Dyar born Nov. 21.
 Edward of Read & Hannah Elding born Nov. 18.
 David of David & Rachel Evstiss born May 5.
 Eliza. of Jonathan & Mary Evans born Oct. 20.
 John of John & Sabella Edwards born Jan. 3.
 Mary of William & Sarah Eustice born Aug. 11.
 Martha of Jonathan & Martha Farnum born Mar. 27.
 Abraham of Giles & Elizabeth Fifield born Apr. 2.
 Mehetable of Richard & Mary Fifield born July 7.
 Sarah of William & Elizabeth Fox born Aug. 11.
 John of Alexander & Mary Fulerton born Sept. 30.
 Dorothy of David & Dorothy Farnum born Sept. 30.
 James of Josiah & Abiah Franklin born Feb. 4.
 Hannah of Benjamin & Mary Frost born Oct. 28.
 Noah of John & Rachel Floyd born May 24.

Thomas of Francis & Eliza. Foxcroft born Feb. 26.
 Bartho. of Thomas & Experience Gould born Apr. 4.
 Charles of John & Mary Gyles born June 12.
 Eliza. of David & Martha Gwin born July 31.
 Gamaliel of William & Hannah Gibson born Aug. 8.
 Sarah of Henry & Mary Gibbs born Sept. 13.
 Robert of Robert & Mary Gibbs born Nov. 29.
 Eliza. of James & Elizabeth Gooch born Jan. 10.
 Eliza. of Bartho. & Mary Green born Aug. 24.
 Samll of Samuel & Elizabeth Greenwood born Aug. 15.
 Sarah of Thomas & Sarah Gwin born Feb. 19.
 Samuel of Richard & Hannah Gridley born Jan. 5.
 James of James & Marget Goodwin born Dec. 27.
 Abigail of Abraham & Abigail Gourdin born Aug. 22.
 Nathll of Nathll & Elizabeth Goowin born Nov. 23.
 John of Joseph & Hannah Grant born Nov. 25.
 Mercey of John & Eliza. Greenough born Aug. 11.
 Mary of John & Esther German born Oct. 3.
 Mary of John & Eliza. Greenough born Aug. 15.
 Nathll of Torrence & Eliza. Henly born Apr. 26.
 Thomas of Thomas & Hannah Hall born May 2.
 Martha of Thomas & Mary Hunt born Jan. 26.
 William of William & Mary Healy born July 19.
 Lydia of Nathll & Sarah Holmes born Nov. 19.
 Mary of Nathll & Hannah Halsey born Nov. 11.
 William of John & Anna Hobby born Nov. 11.
 Francis of Francis & Rebecca Holmes born Mar. 20.
 Augustine of Arthur & Mary Hale born June 14.
 Mary of John & Grace Ireland born Mar. 5.
 Henry of Henry & Lydia Ingraham born Feb. 13.
 Thomas of Thomas & Mary Jacobs born Apr. 27.
 Sarah of Matthew & Susanna Jones born June 9.
 Frances of David & Elizabeth Jefferies born July 12.
 Eliza. of Nathll & Elizabeth Jarvis born July 21.
 Eliza. of David & Maybell Jenner born July 27.
 Ann of Andrew & Susanna Knott born Dec. 16.
 Samuel of John & Mary Kneeland born Jan. 31.
 Miriam of Christopher & Sarah Killby born Dec. 5.
 John of Richard & Sarah Lowden born Apr. 16.
 Mary of Thomas & Mary Lazenby born Apr. 22.
 Peter of Peter & Hannah Leech born June 21.
 Ruth of Isaac & Sarah Lorin born Dec. 19.
 Joseph of Joseph & Patience Lowell born Jan. 3.
 Elizabeth of David & Martha Landon born May 15.
 Benjamin of John & Mary Mountfort born Apr. 5.
 Sarah of Robert & Maria Mason born Apr. 20.
 Susanna of Christopher & Mary Monk born May 16.
 Mary of Thomas & Mary Melings born May 17.
 Edward of Edward & Elizabeth Mills born Sept. 16.
 Charles of Mathew & Faith Middleton born Oct. 5.
 Ebenezer of James & Hannah Mirack born Oct. 12.
 Samuel of Alexander & Dorcas Miller born Nov. 25.
 Duncan of Duncan & Mary Maicum born Nov. 29.
 Eliza. of Samuel & Mary Marion born Nov. 21.
 Jonathan of William & Rebecca Mann born Jan. 25.
 John of Joseph & Ann Marsh born Aug. 2.
 Richard of James & Hannah Mathews born Dec. 13.
 Josiah of John & Eliza. Mullegan born Nov. 25.
 Abigail of Thomas & Betty Mosemy born Feb. 18.
 Sarah of Joseph Savages Mary Negro born Jan. 22.
 Eliezar of William & Experience Norcut born Oct. 12.
 Benjamin of Benjamin & Elizabeth Pemberton born Mar. 13.
 Sarah of William & Deborah Phillips born Mar. 6.
 Thomas of Thomas & Remember Perkins born Apr. 24.

John of John & Elizabeth Pitts born May 5.
 Ann of Nathll & Ann Pether born May 10.
 Elizabeth of William Jr. & Elizabeth Porter born Apr. 24.
 Abigail of John & Margaret Pratt born May 17.
 Eliza. of George & Elizabeth Pordade born May 16.
 Rebecca of Nathanll & Hannah Parkman born June 6.
 Ebenezer of Thomas & Johanna Peck born May 8.
 Elizabeth of Ebenezer & Elizabeth Peck born June 4.
 Thomas of Thomas & Elizabeth Person born July 13.
 James of James & Elizabeth Pitts born July 23.
 Benjamin of Jonathan & Mary Pollard born June 6.
 Daniel of Daniel & Elizabeth Phipeny born Oct. 18.
 Edward } of Edward & Abiell Porter born Dec. 5.
 Abigail } of Edward & Abiell Porter born Dec. 5.
 Margaret of Alexander & Sarah Prindle born Jan. 29.
 Ann of Charles & Elizabeth Pimm born Aug. 19.
 Thomas of Thomas & Elizabeth Procter born Dec. 19.
 John of Richard & Mary Prat born May 18.
 John of Nathanll & Ruth Raynolls born Mar. 29.
 Samuel of Joseph & Esther Robarts born Apr. 30.
 Humperly of Humperly & Susanna Richards born Sept. 3.
 Eliza. of John & Elizabeth Rainger born Oct. —
 E—— son of John & Mary Robinson born Oct. 27.
 Elizabeth of Charles & Mary Roberts born Nov. 2.
 Bartho. of William & Mary Sutton born Apr. 20.
 Nathll of John & Sarah Souther born Mar. 29.
 Elizabeth of Joseph & Elizabeth Skinner born Apr. 27.
 John of Joseph & Elizabeth Salter born Apr. 6.
 Rebecca of Roland & Ann Story born May 2.
 Mary of Sampson & Mary Shore born Apr. 18.
 Hannah of Joseph & Hannah Skeith born Jan. 18.
 Sarah of Alexander & Sarah Sherer born July 7.
 John of John & Grace Stephens born July 12.
 Sarah of John & Mary Stephens born June —.
 Richard of William & Mercy Shoot born Aug. 12.
 Sarah of John & Sarah Street born Sept. 9.
 Anna of Samuel & Anna Smith born Oct 2.
 Place of Thomas & Sarah Stevens born Jan. 19.
 Margaret of Henry & Elizabeth Sharp born Dec. 11.
 Jonathan of Joseph & Rebecca Sneling born Dec. 29.
 Hannah of Alexander & Rebecca Seers born Jan. 14.
 Thomas of Thomas & Sarah Stevens born Jan. 19.
 Robert of Robert & Esther Sanderson born Jan. 16.
 Cyprian of Cyprian & Elizabeth Southack born Feb. 22.
 John (?) of Robert & Deborah Smith born Feb. 10.
 Mary of William & Mary Turner born Mar. 29.
 Abigail of Samuel & Abigail Thorne born June 11.
 Isaiah of Jeremiah & Mercy Toy born Sept. 5.
 Sarah of Samuel & Sarah Tiley born Sept. 1.
 Hannah of John & Mary Trow born Oct 4.
 Humperly of Daniel & Anna Turrell born Sept. 22.
 Mosely of James & Rebecca Townsend born Dec. 2.
 Mary of Peter & Mary Townsend born Jan. 25.
 Elizabeth of John & Martha Tuttle born Dec. 14.
 William of James & Rebecca Taylor born June 19.
 Abigail of David & Mary Vaughan born Mar. 7.
 Ann of Isaac & Elizabeth Virgoose born July 1.
 Ann of Samuel & Ann White born Mar. 2.
 Susanna of Richard & Phebe Whitridge born Mar 3.
 John of John & Martha Whitehead born Aug. 6.
 Ruth & } of Joshua & Ruth Wells born Apr. 2.
 Abigail } of Joshua & Ruth Wells born Apr. 2.
 John of John & Anna Wait born June 2.
 Samuel of Samuel & Mary Ward born June 22.

Samuel of Samuel & Mary Way born July 12.
 James of James & Elizabeth Wackum born July 2.
 Thomas of James & Esther White born Oct. 14.
 James of William & Charity Webb born Nov. 13.
 Eliza. of William & Elizabeth Wheeler born Nov. 17.
 William of William & Penelope Way born Dec. 24.
 Susanna of John & Eliza. Welch born Apr. 29.
 Samuel of Jonathan & Hannah Waldo born Aug. 7.

Samuel Bridg & Sarah Smith were married by Mr. James Allen Dec. 24.
 Samuel Clark & Elizabeth Crafts were married by Mr. Nehemiah Walter May 5.

John Cleverly & Elizabeth Glover were married by Mr. James Allen Nov. 5.
 Joseph Cowel & Eliza Williams were married by Mr. Miles Aug. 6.
 John Down & Ruth Badcock were married by Mr. Miles Aug. 30.
 John Diggins & Rebecca Man were married by Mr. Miles Jan. 19.
 Walter Gutridge & Anna Gross were married by Mr. Cotton Mather Nov. 12.
 Edward Gilling & Mary Thortes were married by Mr. Miles Dec. 25.
 Daniel Hodson & Sarah Sherman were married by Mr. James Allen Oct. 20.
 Timothy Hammant & Melatiah Clark were married by Pen Townsend Esq. Jan. 19.

William Marlton & Sarah Whaly were married by Mr. Miles Jan. 1.
 Thomas Palmer & Abigail Hutchinson were married by Mr. James Allen Jan. 29.

Joseph Rayner & Sarah Davis were married by Mr. Miles Feb. 3.
 Robert Sample & Eliza Bourn were married by Mr. Miles Oct. 12.
 Thomas Smith & Mary Shurah were married by Mr. Miles Mar. 10.
 James Studson & Susanna Townsend were married by Pen Townsend Esq. Nov. 26.

John Tully & Eliza. Eldridg were married by Mr. James Allen Jan. 20.
 Willm. Webster & Mary Mosely were married by Mr. James Allen Nov. 25.

Francis of David and Mary Perry Died May 3.
 Hanah wife of Thomas Hall Died May 8.
 Pasitians Cole daught Richd and Darcos died May 13.
 Peter Townsend Senor died May 14.
 Lidia Wife to Samll Earle died May 29.
 Elizabeth Weeden the Midwife Died June 11.
 John Diar Senior Died June 2.
 Mary Daugt. of Thomas Cooper Died June 17.
 Samll of Samll and Mary Blackden Died June 9.
 Mary of Joseph and Eliz. Eldridge died June 13.
 Thomas of Tho. and Hanah Hall Died July 16.
 Cromell Son of Joseph Lobdell Died June 23.
 Wm. of Wm. and Mary Ruck Died June 26.
 Job of Wm. and Eliza. Fisher Died June 27.
 Eliza. wife of Florance Macarty Died July 6.
 Susanah wife of Joseph Bridgham Died July 11.
 John of Wm. and Eliza. Lanis Died July 22.
 Eliza. wife of Christopher Flegg Died Augt 10.
 John of John and Martha Whitehead Died Augt 13.
 Rebecca of Timo. and Mary Nash Died Augt 13.
 Martha wife of William Dinsdell Died Augt. 7.
 James of Robert & Eliza. Butcher Died Augt 23.
 Nathll Peck Died Augt 24.
 Eliza. daught. of Ebinezer Lowell Died Augt 26.
 John of John and Sew. Garrett Died Sept. 3.
 Mehitabell Daughter of Richd Fyfield Died Sept. 5.
 John of Francis and Sarah Cole Died Sept. 13.
 John Bradish died Octor 12.
 John Rogers Died Novr 2.
 Ann of Jonathan & Ann Bowers Died Novr. 18.
 Sarah wife of Michael Shaler Died Novr 20.
 Mary Fauckner Died Novr 22.

Sarah of Wm and Lidia Clow Died Novr 26.
 Peter of Peter and Mary Chardon Died Novr 29.
 Susanah Hudson died Novr 14.
 Paul Simmons Died Novr 16.
 John of John & Katherine Eyres Died Decemr 1.
 Willm of Nathll and Eliza Oliver Died Novr. 13.
 Mary wife of James Denise Died Novr 16.
 Edward Eglington Died Novr 17.
 Eliza. of Samll & Martha Buriall Died Decemr 4.
 Marget of Benja. & Sarah Davis Died December 12.
 Esther Latomie wife of Peter Dally Died Decemr 14.
 Eliza of John and Elisa Ranger Died Decemr 16.
 Eliza of Charles and Mary Roberts Died Decemr 16.
 Hanah Rugles Died Janr. 3.
 Rachell Wife of John Mershall Died Janry 15.
 Jabis of Thomas & Jemina Butler Died Jan. 22.
 Tho. of Duncan and Marget Garnick Died Feb. 6.
 Humperry of Daniell & An Turrell Died Feb. 11.
 Benja. of Thomas and Mary Baker Died Sept. 28.
 Thomas Bill Died Octor 29.
 Abigall wife of Thomas Bill Died Novr 7.
 Robert of Robart Brinsdon Died Octor 13.
 Joanah of Willm and Ann Copp Died March 20.
 Susana of Duncan & Susanah Cambell Died Febr.
 Joanah daugt. of John Carthew Died Novr. 13.
 Hananiah Son of Samuell Dodge Died Novr 5.
 David Edwards Died Octor 1.
 John Glover died Sept. 23.
 Hanah Gridly Died Janr. 15.
 Abigall Wife of Abraham Gourden Died Sept. 6.
 John Hill Died Janry 31.
 Mary wife of Henry Kemball Died Jull. 4.
 A child of Tong (negro) Died Janr. 28.
 Ann daughter of Nathll Peather Died May 29.
 John Peck Died May.
 James Pemberton Died Octor 11.
 Edwd of Edwd and Abiell Porter Died Decr 7.
 Abigall of Edwd & Abiell Porter Died Decr 13.
 Sarah Parkeman Died Decr 26.
 Dorothy of Wm. & Elizabeth Robinson died Decr.
 Abraham Smith Died March 26.
 Sarah of Robart & Esther Saunderson Died Apr. 20.
 Anna wife of Peter Salamon Died May 26.
 Mary widow of Abraham Smith Died Aug. 23.
 Sarah of Samll & Hanah Sewell Died Decr 23.
 Joseph Souther died Janr. 2.
 Sarah of John and Mary Stevens died Sepr 25.
 Mary Varny died Sepr 28.
 Sarah of John and Sarah Waite Died May 16.
 A negro Child of mr. Waters died Jan. 2.
 Eliza. dau. of Charles Roberts died Jan. 4.

FIRST CHURCH.

John Eustace	Jan. 5.
Elizabeth Cary	Jan. 12.
Francis Smith	Jan. 26.
Elizabeth Simmonds	Feb. 16.
Thomas Windsor	Feb. 23.
Joshua Windsor	Feb. 23.
Caleb Windsor	Feb. 23.
Solomon Windsor	Feb. 23.
William Holloway Junr.	Mar. 22.
John Reynolds	April 5.

John Slacke	April 5.
John Kettle	April 5.
Joseph Kettle	April 5.
Mary Allen aged 5 days	April 12.
William Daniels	May 10.
Hezekiah Butler	June 14.
Abigail Thorne	June 14.
Nathaniel Balston	June 14.
Rebecca Balston	June 14.
Elizabeth Langdane	June 21.
William Welsteed	June 28.
Samuel Ward	June 28.
Sarah Sheerer	July 12.
Gamaliel Gibson	Aug. 2.
Daniel	Aug. 9.
Abigail Waldo	Aug. 16.
Gatliffe Ranger	Aug. 23.
Mary Mattocks	Aug. 30.
Mercy Hawkins	Sept. 20.
John Endicott	Sept. 20.
William Endicott	Sept. 20.
Joseph Endicott	Sept. 20.
Ebenezer Mirecke aged 1 week	Oct. 18.
Margaret Wright aged 15 years	Oct. 18.
Eleanor Pallow a negro	Oct. 25.
Richard of Eleanor Pallow	Oct. 25.
Robin of Eleanor Pallow	Oct. 25.
Eleanor of Eleanor Pallow	Oct. 25.
Thomas Davis	Nov. 15.
John Davis	Nov. 15.
James Davis	Nov. 15.
Thomas Barret	Nov. 15.
Margaret Dyer	Nov. 22.
Elizabeth Clow	Nov. 29.

1697.

TOWN.

Samuel of Joseph & Ann Allen born Apr. 8.
 John of Joseph & Elizabeth Adams born Apr. 10.
 Samuel of Samuel & Mary Avis born Apr. 13.
 Thomas of Thomas & Mary Arnold born May 10.
 Ann of John & Mary Atwood born June 19.
 William of William & Mary Alden born July 23.
 Katharine of John & Elizabeth Alden born Aug. 19.
 Bethiah of John & Hannah Adams born Aug. 20.
 Comfort of Joseph & Comfort Alliston born Oct. 24.
 James of Jeremiah & Mary Allen born Dec. 25.
 Constance of John & Constance Alcock born Jan. 17.
 Daniel of Silence & Esther Allen born Feb. 8.
 Moses of Moses & Eliza Aires born Aug. 12.
 John of John & Abial Brightman born Mar. 30.
 Newcomb of Newcomb & Mary Blaque born Mar. 22.
 Eliza. of Benja. & Elizabeth Brame born Apr. 10.
 Abial dau. of Jacob & Jerusa Bill born Apr. 11.
 Mary of Nathaniel & Rebecca Balstone born May 6.
 Katharine of Jarvis & Martha Ballard born Apr. 20.
 John of Thomas & Elizabeth Blore born June 18.
 Seth of Nathaniel & Mary Baker born June 20.
 John of Ambros & Hannah Berry born Aug. 3.
 John of Joseph & Hannah Billings born July 29.
 Juda of Isaac & Ann Biscoe born Aug. 27.
 Nich. of Samuel & Martha Burrel born Oct. 1.

Jemina of John & Febbee Brenton born July 4.
Martha of Joseph & Rebecca Brisco born Nov. 26.
Thomas of Moses & Elizabeth Bradford born Dec. 24.
William of William & Ann Brown born Sept. 1.
William of Samuel & Sarah Bridge born Dec. 20.
Mary of William & Rebecca Briggs born Jan. 10.
Buttalph of Joseph & Abigail Belknap born Dec. 29.
James of John & Sarah Boreland born Feb. 15.
Peter of Peter & Sarah Barbour born Nov. 10.
Sebellah of Thomas & Lydia Burrington born Aug. 8.
Mary of John & Mary Clark born Mar. 15.
John of John & Hannah Carlile born Apr. 6.
Sarah of William & Ann Copp born Apr. 10.
John of Francis & Sarah Cole born July 29.
Mary of Ebenezer & Martha Clough born July 19.
Mary of Samuel & Mary Checkley born June 26.
Joshua } of Joshua & Mary Cornish born Sept. 1.
Mary } of Joshua & Mary Cornish born Sept. 1.
David of Andrew & Sarah Cuninghame born Sept. 17.
Samuel of Samuel & Hannah Copp born Sept. 13.
John of John & Elizabeth Coombs born Oct. 3.
David of David & Patience Copp born Oct. 21.
Ann of John & Jane Collins born Oct. 25.
James of Samuel & Sarah Clark born Dec. 2.
Ebenezer of William & Liddiah Clough born Dec. 11.
Sarah of Thomas & Sarah Cox born Feb. 27.
John of John & Jane Coffy (negroes) born Feb. 15.
Hannah of John & Sarah Cunnibell born Aug. 5.
Margaret of Timothy & Sarah Clark born Apr. 4.
Jeremiah of John & Ruth Centor born Feb. 15.
Thomas of Christor. & Tamzine Capril born Nov. 3.
John of Edward & Sarah Dolbear born Mar. 2.
John of Edward & Hannah Durant born Mar. 29.
Hannah of Samson & Sarah Dewer born Aug. 21.
Eliazer of Eliazer & Mary Darby born Apr. 14.
Elizabeth of Thomas & Jane Dean born Sept. 20.
John of William & Dorothy Dusebury born Nov. 8.
Keziah of John & Rachel Draper born Jan. 20.
Joseph of Joseph & Hannah Dolbear born Jan. 10.
Joseph of Seth & Abigail Dwight born Feb. 3.
Ann of Joseph & Ann Dowden born Jan. 1.
Ruth of William & Sarah Eustice born Feb. 2.
Martha of Benja. & Elizabeth Emons born Mar. 3.
Robert of Robert & Bethiah Emes born Mar. 21.
John of Robert & Sarah Earle born Aug. 21.
Mary of John & Catharine Eyre born Sept. 15.
George of John & Lucey Elliston born Sept. 29.
Read of Read & Hannah Eldeh born Dec. 11.
Dorothy of Joseph & Rebecca Fuller born Mar. 15.
Richard of Richard & Elizabeth Flood born Mar. 6.
John of Henry & Susanna Farry born June 16.
Dorothy of John & Dorothy Farnum born June 11.
Thomas of Thomas & Abial Fitch born Sept. 21.
Mary of William & Esther Frothingham born Dec. 3.
Abigail of Christopher & Abigail Goffe born Mar. 13.
James of John & Bethiah Green born June 9.
Samuel of Joshue & Elizabeth Gee born June 10.
Mary of Nathaniel & Elizabeth Green born Aug. 8.
Joseph of Joseph & Jane Glidden born July 19.
Thomas of Thomas & Hannah Gilberd born Aug. 24.
Samuel of Richard & Hannah Green born Sept. 13.
Jane of Samuel & Priscilla Grice born Oct. 28.
John of Henry & Mary Gibbs born Dec. 14.
William of John & Lydia Gerrish born Dec. 28.

Ruth of Samuel & Elizabeth Gardner born Jan. 23.
 William of William & Elizabeth Goddard born Jan. 24.
 Thomas of David & Martha Gwin born Feb. 1.
 Bartholomew of Barthol. & Mariah Green born July 12.
 John of William & Elizabeth Gill born Oct. 3.
 Hannah of Joseph & Hannah Grant born Jan. 15.
 Nathl. of Joshua & Eliza. Hewes born Mar. 2.
 Martha of William & Martha Hannah born Mar. 20.
 Mary of Nathaniel & Ann Henschman born Apr. 13.
 John of Torrence & Elizabeth Henly born Apr. 28.
 Ruth of John & Abigail Hilton born June 29.
 Mary of Joseph & Mary Heath born July 6.
 Richard of Samuel & Deborah Hood born June 20.
 Thomas of Thomas & Bridget Hays born Aug. 7.
 John of Hercules & Jane Hewit born Sept. 1.
 Ann of Jacob & Mary Holloway born Sept. 7.
 John of John & Ruhamah Hill born Nov. 24.
 Jacob of Elizur & Mary Holioke born Nov. 6.
 John of Henry & Mary Hill born Jan. 4.
 Lydia of William & Mary Hough born Feb. 2.
 Eliza. of Robert & Hannah Hannah born Apr. 24.
 John of Francis & Rebecca Holmes born Mar. 4.
 Richard of John & Ann Hobby born Jan. —
 Mary of James & Penelope Jarvis born Mar. 25.
 Samuel of John & Sarah Jenkins born May 8.
 Ruth of William & Sarah Johnson born Nov. 16.
 Peter of David & Elizabeth Jeffries born Nov. 18.
 Mary of Daniel & Elizabeth Jackson born Jan. 20.
 James of John & Lydia Kelton born Mar. 5.
 Samuel of Samuel & Mary Kneeland born Apr. 26.
 Mary of Thomas & Elizabeth Kellen born July 4.
 Jonathan of Jonatha. & Elizabeth Lambert born Mar. 20.
 Eliza of William & Elizabeth Lavis born June 1.
 Abigail of Thomas & Abigail Larramore born Aug. 2.
 Margaret of John & Elizabeth Langdon born Aug. 23.
 Ebenezer of Ebenezer & Eliza. Lowell born Oct. 21.
 Thomas of Thomas & Mehitabel Lincoln born Nov 12.
 Gabril of James & Ann Lablond born Mar. 5.
 Edward of Samuel & Mehitabel Lilly born Feb. 25.
 Joseph of Joseph & Elizabeth Lobden born Mar. 18.
 Christopher of Thomas & Dorcas Marshal born May 22.
 Robert of Robert & Ann More born June 19.
 Ebenezer of Thomas & Elizabeth Messenger born June 2.
 William of Joseph & Hannah Marriner born July 26.
 Ralph } of Henry & Hannah Mayer born Aug. 8.
 Henry } of Henry & Hannah Mayer born Aug. 8.
 Grace of Francis & Mary Marshal born Oct. 15.
 Sarah of John & Elizabeth Maxwell born Oct. 25.
 Ann of John & Sarah Miles born Jan. 1.
 Elizabeth of John & Mary Mountfort born Feb. 25.
 John of John & Sarah Mason born Nov. 1.
 Sarah of Edward & Sarah Martin born May 27.
 Rebecca of Stephen & Mercy Minot born ———
 Temperance of David & Temperance Norton born Mar. 16.
 Lewis of Nathaniel & Sarah Newdigate born Jan. 31.
 Samuel of John & Sarah Oliver born Mar. 6.
 William of Rignal & Priscilla Odall born July 19.
 Mary of John & Sarah Parker born Apr. 30.
 Mary of Garrot & Sarah Pursly born Apr. 27.
 Eliza. of William & Constance Palfree born Apr. 30.
 Mary of William & Sarah Pain born May 16.
 Sarah of Elias & Sarah Purington born June 29.
 Sarah of Thomas & Elizabeth Pike born June 9.
 Jacob of Jacob & Ann Parker born July 24.

Esther of Thomas & Hannah Platt born Aug. 11.
 Sarah of Thomas & Mary Pratt born Aug. 10.
 Thomas of Thomas & Abigail Palmer born Oct. 4.
 Mary of Mark & Faith Pilkinton born Oct. 4.
 Thomas of Thomas & Member Perkins born Oct. 19.
 Ann of Jonathan & Mary Pollard born Jan. 22.
 Abigail of William & Elizabeth Parkman born Jan. 8.
 Obediah of Obediah & Mary Perry born May 28.
 Elizabeth of Edward & Elizabeth Pell born Dec. 6.
 Martha of John & Martha Ruggles born Mar. 31.
 Eliza. of John & Experience Roberts born Apr. 18.
 Sarah of Ralph & Martha Ransford born May 27.
 Sarah of James & Elizabeth Raymer born May 15.
 John of Joseph & Elizabeth Rogers born July 13.
 William of William & Elizabeth Randal born July 24.
 Elizabeth of Richard & Nagor Richards (negroes) born ———.
 Elizabeth of Joseph & Mary Russell born Aug. 1.
 Sarah of Thomas & Martha Raper born Sept. 30.
 John of Humphry & Susanna Richards born Nov. 15.
 Jane of John & Mary Roberts born Dec. 25.
 Edmund of John & Elizabeth Ranger born Dec. 12.
 Cyprian of Cyprian & Elizabeth Southack born Feb. 21.
 Jane of John & Jane Smith born Mar. 6.
 John of John & Rely Simpson born May 4.
 Thomas of Thomas & Edeth Seward born May 2.
 Samuel of Seth & Mehitabel Smith born May 23.
 John of Simeon & Mehitabel Stoddard born June 3.
 Joseph of Joseph & Hannah Souther born Feb. 7.
 Joseph of Joseph & Elizabeth Skinner born July 26.
 Henry of Henry & Sarah Smith born Apr. 30.
 Hannah of Thomas & Mehitabel Savage born Sept. 20.
 Elizabeth of William & Martha Shoot born Sept. 18.
 Ann of Joseph & Hannah Simpson born Sept. 19.
 Thomas of Thomas & Margaret Savage born Apr. 20.
 Nicholas of John & Bridget Salisbury born Oct. 28.
 Susanna of James & Susanna Studson born Dec. 19.
 Rebecca of Joshua & Rebecca Scottow born Jan. 26.
 Abigail of John & Jane Snelling born Feb. 9.
 Alce of John & Ann Smith born Jan. 28.
 Abigail of Benja. & Susanna Stone born Feb. 16.
 Sarah of Benja. & Jamina Snelling born Feb. 27.
 Dorothy of John & Mary Stover born Oct. 16.
 Abigail of Briant & Abigail Smith born Aug. 26.
 Richard of Richard & Mary Thomas born Apr. 10.
 James of James & Mary Townsend born Apr. 13.
 Samuel of James & Mary Truworthy born Jan. 24.
 John of John & Hannah Tapper born Nov. 1.
 William of Samuel & Sarah Tily born Nov. 30.
 Jonathan of Jona. & Elizabeth Townsend born Jan. 1.
 Susanna of Benja. & Susanna Thaxter born Feb. 1.
 Mary of William & Mary Turner born Feb. 28.
 John of Samuel & Abigail Thorne born Feb. 10.
 Mary of Benjamin & Mercy Tout born May 6.
 Damarus of Edward & Abigail Tuttle born Nov. 20.
 Mary of John & Sarah Vickers born Oct. 25.
 Abigail of Thomas & Hannah Veering born Feb. 19.
 Rebecca of Thomas & Rachel Winsor born Mar. 19.
 John of Richard & Ann West born Mar. 26.
 Sarah of Thomas & Sarah Warren born Mar. 8.
 John dau. of Eperence & Eliza. Willis born Apr. 29.
 Hannah of Edward & Hannah Winslow born Mar. 8.
 Ebenezer of Michael & Elizabeth Willis born Apr. 9.
 Abigail of John & Abigail Wilson born May 14.
 Jona. of Jonathan & Hannah Waldo born June 4.

Sarah of John & Martha Whitehead born July 21.
 Mary of Christoper & Mary Weeks born Sept. 29.
 Sarah of Samuel & Eunis Willard born June 10.
 John of John & Tripena Woodard born Sept. 11.
 Mary of John & Mary Wells born Nov. 22.
 Seward of William & Abigail Waters born Jan. 6.
 Joseph of Joseph & Hapnah Wodsworth born Jan. 25.
 Elizabeth of James & Eliza. Wacomb born Feb. 9.
 Susannah of John & Elizabeth Wilkin born Feb. 26.
 James of James & Sarah Williams born May 19.
 William of William & Ann Wheeler born Apr. 27.
 Ann of Obediah & Susanna Wakefield born Feb. 20.

John Allen & Elizabeth Edwards were married by Mr. James Allen July 22.
 William Ambross & Elizabeth Mattock were married by Mr. Woodbridg Jan. 6.
 Daniel Berry & Mary Mayer were married by Mr. James Allen July 8.
 David Buckly & Hannah Tally were married by Mr. Cotton Mather June 3.
 Samuel Burrel of Lyn & Margaret Jarvis of Boston were married by Mr. Cotton Mather Sept. 17.
 Andrew Bondman of Cambridg & Eliza Tuesdell of Boston were married by Mr. Benja Wadsworth Dec. 16.
 William Brattle of Cambridg & Eliza Hayman of Boston were married by Mr. Saml. Willard Nov. 3.
 John Briggs & Sarah Curtis were married by Mr. Saml. Willard Jan. 11.
 Joseph Belcher & Hannah Bill were married by Mr. Thomas Cheever Jan. 7.
 Thomas Bowes & Sarah Bowes were married by Mr. Miles June 21.
 William Barkly & Mary Miriour were married by Mr. Miles Jan. 13.
 William Bedford & Hannah Briant were married by Mr. Miles Feb. 22.
 John Briggs & Elizabeth Allen were married by Pen Townsend Esq. Apr. 27.
 Thomas Creese & Rookby Greenleaf were married by Mr. James Allen June 30.
 William Codner & Sarah Young were married by Mr. James Allen Nov. 21.
 Thomas Cocker & Sarah Waldren were married by Mr. Cotton Mather May 3.
 John Collins & Jane Loyd were married by Mr. Saml Willard Apr. 22.
 Abra. Cole & Ann Townsend were married by Mr. James Allen Sept. 30.
 Joseph Chantril & Amie Gardner were married by Mr. Saml Willard Dec. 13.
 John Cairness & Eliza Mortimor were married by Mr. Miles June 24.
 David Dewer & Jannet Neal were married by Mr. Benja. Wodsworth July 29.
 Henry Dee & Hannah Hillard were married by Mr. Miles Sept. 30.
 Peter Dearlove & Jone Mullikin were married by Mr. Miles Oct. 27.
 Elijah Dubbledee & Sarah Pain were married by Mr. Miles Jan. 23.
 Thomas Davis & Grace Hult were married by Mr. Miles Jan. 27.
 Joseph Eliot & Sarah Collins were married by Mr. James Allen July 29.
 Jonathan Everrard & Penelope Clark were married by Mr. James Allen Aug. 9.
 Rich. Frankin & Abigail Stanbury were married by Mr. James Allen Sept. 29.
 Daniel Floyd & Mary Hallewel were married by Mr. Cotton Mather Jan. 18.
 Robert Fletcher & Susanna Worthileg were married by Mr. Miles Jan. 13.
 David Griffin & Catharine Howard were married by Mr. Saml Willard June 14.
 William Goddard & Eliza. Fayrefield were married by Mr. James Allen Oct. 29.
 Nicho. Green & Rebecca Clay were married by Mr. Miles Mar. 22.
 Samuel Haugh & Margaret Johnson were married by Mr. Saml. Willard Sept. 30.
 Joseph Humphry & Sarah Smith were married by Mr. Saml. Willard Oct. 28.
 Joseph Halsey & Elizabeth Eldredg were married by Mr. James Allen Jan. 29.
 Richard Henchman & Esther Webster were married by Mr. Cotton Mather Dec. 24.
 William Hepworth & Mary Lock were married by Mr. Woodbridge Jan. 3.
 Thomas Hudson & Sarah Crocker were married by Mr. Miles Oct. 24.
 James Humphryes & Thankful White were married by Pen Townsend Esq. Nov. 4.
 Daniel Jackson & Elizabeth Johnson were married by Mr. Cotton Mather Apr. 2.
 James Jones & Joanna Williams were married by Mr. Cotton Mather Apr. 2.
 Joshua Kent & Agnes Okeman were married by Mr. Saml. Willard Nov. 4.
 John Kitt & Margaret Murrel were married by Mr. Miles Sept. 23.

Isaac Lobdale & Hannah Bishop were married by Mr. Cotton Mather Aug. 12.
John Leveret of Cambridge & Margaret Berry of Boston were married by Mr. Cotton Mather Nov. 25.

John Lathrop of Barnstable & Joanna Prince of Boston were married by Mr. Benja. Wadsworth Jan. 21.

Cornelius Loreson & Abiel Paig were married by Mr. Tho Cheever Nov. 4.

Thomas Marshall & Mary Chantril were married by Mr. Saml Willard June 18.

Stephen Mumford of Rode Island & Mary Timberlake were married by Mr. Saml Willard Aug. 30.

Thomas Mellous & Sarah Mumfort were married by Mr. James Allen Nov. 3.

Samuel Mears & Mariah Gross were married by Mr. Cotton Mather Dec. 7.

Florene Macartie & Sarah Newwork were married by Mr. Miles Aug. 24.

James & Savadorah (Negro) were married by Mr. Sam. Willard Dec. 11.

John Osland & Sarah Hide of New Town were married by Saml Sewell Esq. Oct. 14.

John Oliver & Hannah Mather were married by Mr. Increase Mather Jan. 28.

Elisha Odlen & Mary Colburn were married by Mr. Saml Willard Dec. 30.

Joseph Pelham & Rebecca Barber were married by Mr. James Allen Mar. 19.

Theophilus Philpot & Rebecca Chonor were married by Mr. Miles Sept. 22.

John Pitts & Elizabeth Lindall were married by Mr. James Allen Sept. 10.

William Parsons & Martha Baldwin were married by Mr. James Allen Sept. 15.

John Perkins & Mary Mackfarland were married by Mr. Saml Willard Dec. 11.

Isaac Royall & Elizabeth Eliot were married by Mr. Benja Wodsworth July 1.

John Ruch & Hannah Hutchinson were married by Mr. James Allen Apr. 29.

Josiah Sanders & Rebecka Smith were married by Mr. Sam. Willard Apr. 7.

John Stiler & Mary Bull were married by Mr. Cotton Mather June 9.

Daniel Souther & Elizabeth Boden were married by Mr. Cotton Mather June 15.

John Sharp & Mary Brooks were married by Mr. James Allen Sept. 6.

Philip Slow & Barbary Hitchil were married by Mr. Miles Feb. 24.

Georg Siry & Jane Fall were married by Mr. Miles Mar. 16.

William Thornton of Salam & Ann Hanet of Charls Town were married by Mr Cotton Mather Aug. 17.

Thomas Tomlin & Sarah Sreet were married by Mr. Saml. Willard Dec. 30.

Richard Tally & Elizabeth Gross were married by Mr. Saml. Willard Jan. 27.

Joshua Tucker & Hannah Cleverly were married by Saml. Sewell Esq. Nov. 2.

John Wilkins & Elizabeth How were married by Mr. Cotton Mather Apr. 27.

John Wells & Mary Peck were married by Mr. Benja. Wodsworth Feb. 18.

Jonthon Williams & Mary Hunlock were married by Mr. Benja. Wodsworth July 12.

Samuel Weaver & Elizabeth Cravath were married by John Bayley Mar. 27.

Richard Ward & Mary Gusteen were married by Mr. James Allen Oct. 22.

Joseph Wood & Judieth Hely were married by Mr. Cotton Mather Oct. 20.

Nathl. Wheeler & Mary Bridges were married by Mr. Cotton Mather Nov. 9.

Elish. Webb & Lydia Scottow were married by Mr. Cotton Mather Nov. 18.

Joseph Wheeler & Elizabeth Pell were married by Mr. Cotton Mather Dec. 14.

John Winter & Ann Phenix were married by Mr. Miles Apr. 2.

Samuel King Dyed 9th march.

John Bendall Dyed the 30 April.

Hopestil Bryer Dyed the 20 April.

Newcomb of Newcomb Blaque Dyed 18 June.

Richard Son of Capt. Smithson Dyed 23 June.

Sarah Messenger Dyed 6 June.

Hannah Daugh. of Edward Boylstone Dyed 27 June.

Richard Willard Dyed 29 June.

Mr. Joshua Moody minister Dyed 6 July.

John of John & rely Simpson Dyed ———.

Sarah Lobden dyed the 22 march.

John Wilson was drowned the 10 March.

Samuel King Dyed the 11 March.
John of John & Susanna Bayly Dyed 11 March.
Eliza. of James & Elizabeth George Dyed 11 March.
Samuel Howard dyed the 11 March.
Sarah of Joseph & Hannah Day Dyed 17 March.
Deborah Paddy dyed 22 March.
Timo. Cunnel Dyed 3 April.
John Boden Dyed 4 April.
John Marshall Dyed 12 April.
Richard Harris Dyed 12 April.
Mary Saxton dyed 12 April.
John of John Colman dyed 12 April.
Thomas of Edward Procter Dyed 12 April.
John of John Woody Dyed 17 April.
Hopedil Bryer Dyed the 28 April.
John Bendol Dyed 30 April.
Mary daugt. of John Parker Dyed 13 May.
William Esset Dyed 24 May.
Thomas Walker Dyed 30 May.
The wife of Daniel Wire dyed the 4 May.
Nathaniel of Nathll Baker Dyed June 13.
Rebecca daugt. of Roland Story Dyed 16 June.
Thomas of Thomas Perkins Dyed 10 June.
Mrs. Jerusha Saltonstal the wife of mr. Saltonstal of New London minister
dyed 20 June.
Richard of Richard Smithson Dyed 23 June.
Old mrs. Messenger Dyed the 6 June.
Hannah Daugt. of Edwd Boylstone Dyed 6 June.
Maycome Dyed the 26 June.
Richard of mr. Samuel Willard Dyed 29 June.
Lt. Richard Way Dyed the 23 June.
Seth of Nathll. Baker Dyed July 14.
Mary wife of John Briggs Dyed 18 July.
John of John Eustus Dyed 11 July.
Abigail Daugtr of John Wilson Dyed July 16.
Mr. Joshua Moody minister Dyed 25 July.
Joseph of Joseph Lowle junr Dyed 10 July.
Mrs. Eliza. Jackson of Nevis dyed 11 July.
Mr. Hezekiah Vsher Dyed the 14 July.
Robert Adams dyed the 16 July.
Robert of Benja. Emms Dyed 25 July.
Elizabeth wife of George Robinson Dyed 7 July.
Sarah Daughtr. of mr Samuel Willard Dyed 23 July.
John of John Simpson dyed Augt. 9.
James of Philip Langdon dyed 18 Aug.
Sarah wife of Richard Tally Dyed 5 Aug.
Ann Daught. of Sampson Dewer Dyed 11 Aug.
Abigail Daugtr. of Samll. Thorne Dyed 3 Aug.
John Blore Dyed 8 Aug.
Eliza. daugtr of George Pordage Dyed 24 Aug.
Mary wife of William Habberfield Dyed 30 Aug.
Sarah wife of John Auger Dyed 6 Aug.
Jacob of Jacob Parker Dyed 6 Aug.
Mr. Thomas Grafford Dyed 6 Aug.
Ralph of Henry Mare Dyed 25 Aug.
Mary daughtr. of Sampson Shore Dyed 18 Aug.
Agnis Sealey Dyed the 5 Aug.
Isaac of Isaac Biscon Dyed 6 Septembr.
Samuel of Samuel Ward Dyed 6 Sept.
John Howard at Capt. Verrys Dyed 25 Sept.
Hannah Winchester Dyed 18 Sept.
Mis. Curwin Dyed 23 Sept.
John of Henry Brightman Dyed 6. Octobr.
Sarah daught of William Copp Dyed 20 Oct.

Ebenezer. of Michael Willis Dyed 30 Octor.
 Mary Daught of Christopr Monk Dyed 25 Oct.
 William Bryant Dyed 7 Oct.
 Susanna Hill Dyed 18 Oct.
 Jonathan Elieston Dyed 6 Novembr.
 Samuel Johnson Dyed 18 Nov.
 Christopher Slegg Dyed 25 Nov.
 Philippy Philips Dyed 13 Decemr.
 Mr. John Bayley Dyed 12 Dec.
 Abigail Gorden Dyed 13 Dec.
 Philip Langdon Dyed 11 Dec.
 Margaret Roberts Dyed 14 Dec.
 Lidia wife of John Gerrish Dyed 8 Janr.
 Eliza. Tucker Dyed 7 Jan.
 Samll of Samll Copp Dyed 24 Jan.
 William of John Gerrish Dyed 20 Jan.
 Thomas Harris Butcher Dyed 5 Jan.
 Joseph of Joseph Dolbear Dyed 25 Jan.
 Mary daught of Samll. Hooper Dyed 22 Jan.
 John son of Tadourneau Dyed 29 Jan.
 Mabell wife of Joseph Hill Dyed 12 Jan.
 Rebecca Winsor an Antiant wido. Dyed 28 Jan.
 Rebecca Daughtr of Gipson Farr Dyed 22 Jan.
 John of Edward Gouch Dyed 22 Jan.
 Mary wife of Jarbis Coley Dyed 22 Jan.
 Deborah wife of John Barrel Dyed 22 Jan.
 Mis. Mary Turrel wife of Capt. Daniel Turrel Dyed 23 Jan.
 Thomas Baker Senr. Dyed 3 Jan.
 Eliza. Earle Dyed 24 Jan.
 Dennis Mackdaniel Dyed 20 Jan.
 John of Joseph Wadsworth Dyed Febr. 6.
 James of James Grant Dyed 18 Feb.
 Constant Daughtr of John Alcock Dyed 18 Feb.
 Mis. Brookhaven Dyed 2 Feb.
 Mis. Wardel an Antiant wido. Dyed 22 Feb.
 Thomas of Thomas & Margaret Savage died July 13.

FIRST CHURCH.

Hannah Collins aged one week	Jan. 3.
Samuel Bill	Jan. 3.
Richard Bill	Jan. 3.
Hannah Bill	Jan. 3.
Abraham Bill	Jan. 3.
Ephraim Howard	Jan. 10.
Samuel of Samuel Marshall	Jan. 10.
John of Samuel Marshall	Jan. 10.
Thomas of Samuel Marshall	Jan. 10.
Ephraim of Samuel Marshall	Jan. 10.
Manasseh of Samuel Marshall	Jan. 10.
Ruth of Samuel Marshall	Jan. 10.
Joannah of Samuel Marshall	Jan. 10.
Sarah of Samuel Marshall	Jan. 10.
Lydia Pollock a negro Child	Jan. 10.
John of Rev. John Bayly	Jan. 17.
Elizabeth Gooch	Jan. 17.
John Parke	Jan. 31.
Anna of John & Mary Coney	Jan. 31.
Joseph Lowel	Feb. 7.
Elizabeth Delvier	Feb. 7.
Henry Ingram	Feb. 14.
John Parker	Feb. 14.
Remember Parker	Feb. 14.

Enoch Greenleafe adult	Feb. 28.
Mary Gooch adult	Feb. 28.
Mary Thwing	Feb. 28.
William Thwing	Feb. 28.
John Thwing	Feb. 28.
Lydia Thwing	Feb. 28.
Hannah Green	Mar. 14.
Elizabeth Green	Mar. 14.
Isaiah Verry	Mar. 21.
Rachel Windsor	Mar. 21.
Mary Veach	Mar. 28.
Susanna Veach	Mar. 28.
Abigail Temple	April 4.
Ebenezer Willis	April 11.
Mary Goldsmith	April 11.
Joanna Willis	May 2.
Mary Parker	May 2.
Mary Balston	May 9.
Edmund Neagers	May 30.
Jonathan Waldo	June 6.
Ebenezer Messenger	June 6.
Edward of Ezekiel Clesbie	June 13.
William Marriſter	Aug. 1.
Mary Green of N. G. Junr.	Aug. 8.
Sarah Ashley	Aug. 22.
Anna Dewer	Aug. 22.
Samuel Copp	Sept. 19.
David Cuningham	Sept. 19.
Samuel Green	Sept. 19.
Hannah Savage	Sept. 26.
John Coomes	Oct. 10.
David of David Copp	Oct. 24.
Margaret Robberts	Nov. 21.
Mary Wells	Nov. 28.
Edmund Ranger	Dec. 12.
James of Jeremiah & Mary Allen	Dec. 26.
Thomas Bradford	Dec. 26.
Chuzziah Draper	Dec. 26.

1698.

TOWN.

Matthew son of Matthew & Margaret Armstrong born April 17.
 Josiah of Jonathan & Rebecca Adams born May 8.
 James of John & Elizabeth Allen born Apr. 11.
 Abigail of Thomas & Abigail Adkins born Nov. 19.
 Mary of Samuel & Mary Avis born Dec. 4.
 Elisha of Elisha & Eliner Andrews born Dec. 13.
 Philips of Natha. & Hephzibeth Alden born Dec. 31.
 Elizabeth of John & Mary Atwood born Aug. 21.
 Eliza. of William & Elizabeth Ambross born Dec. 14.
 Mary of Elisha & Mary Audling born Oct. 6.
 Mary of Samuel & Christian Bridge born Mar. 13.
 Newcomb of Newcomb & Mary Blaque born Apr. 21.
 John of John & Mary Bears born May 19.
 Rachel of James & Rachel Barry born July 14.
 Rachel of Nathaniel & Mary Baker born July 29.
 Thomas of Edward & Mary Brumfield born July 25.
 Samuel of William & Mercy Brown born Aug. 30.
 Lydia of Thomas & Lydia Barnes born Aug. 30.
 Hannah of Edward & Hannah Ball born Aug. 30.
 Margaret of Peter & Sarah Barbóur born Aug. 30.
 George of George & Mary Burrel born Sept. 24.

Joseph of Joseph & Hannah Belcher born Oct. 25.
Priscilla of Phillip & Sarah Bass born Jan. 18.
Alford of Peter & Elizabeth Butler born Feb. 3.
Sarah of Randol & Sarah Broughton born Jan. 12.
William of Gilbert & Mercy Bant born Feb. 4.
Huldy of John & Elizabeth Bucanon born Feb. 5.
Edward of Edward & Mary Boylston born Nov. 22.
James of James & Eliza. Babbidge born Mar. 9.
Zechery of John & Elizabeth Banks born July 15.
Hannah of Daniel & Mary Berry born Apr. 27.
Samuel of Samuel & Deliverance Bayley born Dec. 24.
Mary of Samuel & Mary Barrat born Feb. 28.
Richard of Richard & Catharine Barnerd born Mar. 20.
John of John & Elizabeth Carnes born Apr. 3.
Thomas of Thomas & Rooksby Creesee born Apr. 1.
Hannah of Jonas & Mary Clay born May 28.
Margaret of George & Doreus Courtney born June 5.
William of William & Ann Copp born June 9.
Ruth of John & Ruth Cook born July 1.
Margaret of James & Mary Cock born Aug. 21.
Richard of George & Mary Clark born Oct. 22.
James of Richard & Abigail Cheever born Nov. 22.
William of John & Juda Coleman born Dec. 15.
John of John & Sarah Clark born Dec. 15.
Mary of Edward & Sarah Cruff born Dec. 22.
William of William & Eliza. Crow born Dec. 8.
Sarah of Edward & Sarah Collins born Jan. 15.
James of Andrew & Sarah Cuningham born Feb. 15.
Elizabeth of Samuel & Eliza. Clark born Feb. 10.
Sarah of Matthew & Mary Cary born Feb. 14.
Prudence of Timo. & Sarah Clark born Dec. 31.
Esther of Paul & Mary Collings born Apr. 10.
William of William & Mary Davis born Mar. 25.
Sarah of Thomas & Hannah Davis born Mar. 27.
Hannah of Henry & Abigail Dawson born Mar. 11.
Ann of David & Jannet Dewer born May 15.
Jane of Thomas & Jane Dane born Sept. 2.
James of Robert & Jane Davis born Oct 17.
John of Benja. & Hannah Dyer born Nov. 21.
Abigail of Elijah & Sarah Dubbleday born Oct. 10.
Anna of Samuel & Elizabeth Durrum born Nov. 22.
Joseph of Joseph & Sarah Eliot born July 10.
Eliza. of Davis & Rachel Eustis born Aug. 6.
Antipas of John & Sybill Edwards born Nov. 23.
Eliza. of William & Eliza. Endicot born Jan. 2.
John of John & Catharine Eyre born Jan. 17.
Richard of Roger & Lydia Earle born Feb. 5.
Edward of Roben & Eliza. Ellis born Feb. 23.
Joseph of Joseph & Silence Eliot born May 1.
Mary of Benjamin & Mary Fitch born May 28.
Ruhanas of Joseph & Rebecca Fuller born Aug. 20.
Lydia of Joseph & Joanna Flood born Jan. 5.
Sarah of Richard & Mary Fyfield born Jan. 10.
Benja. of Richard & Eliza. Flood born Feb. 3.
Eliza. of James & Eliza. Gooch born Mar. 17.
Hannah of Walter & Hannah Goodridge born Mar. 21.
Eliza. of Samuel & Elizabeth Greenwood born Apr. 21.
Hannah of Thomas & Sarah Gwin born Apr. 14.
Joshua of Joshua & Elizabeth Gee born June 29.
William of John & Mary Gyles born July 7.
Deborah of Barthol. & Mary Green born Aug. 2.
Benja. of Benja. & Hannah Gallop born Nov. 11.
Margar. of James & Margar. Gooding born Nov. 11.
Nathaniel of Nathaniel & Eliza. Green born Nov. 27.

Mary of Samuel & Elizabeth Gardner born Dec. 15.
 James of Samuel & Susanna Grey born Jan. 4.
 Samuel of Thomas & Lydia Gilbert born Feb. 21.
 Elizabeth of Abraham & Sarah Gourden born Feb. 27.
 Barthol. of Thomas & Experience Gold born May 24.
 Martha of Barthol. & Mariah Green born Jan. 28.
 John of John & Esther German born Apr. 24.
 Jabez of Thomas & Mary Hunt born Apr. 5.
 William of William & Sarah Harrison born Mar. 8.
 Benja. of John & Margary Homer born May 8.
 Mary of Samuel & Mary Hooper born June 1.
 Mary of Samuel & Mary Hunting born June 4.
 Elizabeth of Torrance & Eliza. Henly born Aug. 24.
 Jane of Hercules & Jane Hewet born Oct. 30.
 Keziah of Arthur & Mary Hale born Sept. 14.
 Hannah of Nathanll & Hannah Hasey born Nov. 10.
 Mary of William & Ann Holowell born Nov. 28.
 Bridget of Thomas & Bridget Hays born Dec. 21.
 Natha. of Natha. & Sarah Holmes born Dec. 14.
 Eliza. of William & Martha Hannah born Jan. 16.
 Benja. of Benja. & Mary Holowell born Jan. 20.
 Samuel of Samuel and Margaret Hough born May 27.
 Sarah of Thomas & Sarah Hudson born Jan. 31.
 Sarah of Thomas & Eliza. Holmes born Feb. 22.
 Natha. of John & Grace Irland born July 12.
 Joanna of James & Love Ingles born May 2.
 Mary of Thomas & Priscilla Jackson born May 24.
 William of John & Mary Jarvis born Sept. 14.
 Apfier of John & Apfier Jepson born Jan. 1.
 Samuel of Joseph & Anna Johnson born Feb. 12.
 Priscilla of David & Priscilla Johnson born Jan. 5.
 James of Thomas & Mary Jacobs born Mar. 13.
 William of John & Rebecca Kilby born Apr. 6.
 Abigail of Roger & Abigail Kilcup born Jan. 3.
 Joshua of Joshua & Agnes Kent born Sept. 14.
 Solomon of Solomon & Mary Kneeland born Sept. 23.
 Joseph of John & Mary Kneeland born Jan. 29.
 Mary of David & Martha Langdon born Apr. 4.
 Deborah of Edward & Deborah Lyde born Sept. 14.
 John of John & Elizabeth Langdon born Oct. 17.
 Joanna of John & Joanna Lathrop born Dec. 28.
 Benja. of Joseph & Elizabeth Lobden born Dec. 27.
 Gabril of James & Ann Lablond born Mar. 5.
 Thomas of Thomas & Mary Mellens born Aug. 30.
 Mary of Samuel & Mary Mears born Sept. 12.
 Diana of Henry & Diana Mattox born Nov. 27.
 Priscilla of Joseph & Hannah Marriner born Dec. 4.
 Joseph of Samuel & Mary Marion born Dec. 18.
 Patience of Henry & Hannah Mare born May 17.
 Sarah of Florance & Sarah Mackarty born May 13.
 Betty of Thomas & Betty Mosemy born Mar. 7.
 John of Philip & Mary Marret born Dec. 19.
 Priscilla of Ezekiel & Priscilla Needham born July 2.
 Ezekiel of Natha. & Rest Newhall born Aug. 19.
 Mary of John & Dorothy Nicholson born Jan. 20.
 Lydia of John & Lydia Osment born Aug. 30.
 Ann of Elias & Ann Oris born Feb. 18.
 Nathanl of Nathanll & Hannah Parkman born June 12.
 William of James & Elizabeth Pitts born June 13.
 Stephen of Jacob & Rachel Price born June 22.
 Mary of Daniel & Elizabeth Phippen born July 2.
 Thomas of John & Elizabeth Pitts born June 28.
 Mary of Thomas & Elizabeth Pearson born Sept. 20.
 Joanna of Thomas & Joanna Peck born Oct. 20.

Mary of Thomas & Remember Perkins born Dec. 13.
 Mary of John & Margaret Pratt born Aug. 22.
 James of Benja. & Elizabeth Pemberton born Nov. 13.
 Eliza. } of Alexander & Sarah Prinly born Jan. 24.
 Mary } of Alexander & Sarah Prinly born Jan. 24.
 Ann of Jacob & Ann Parker born Jan. 28.
 Benja. of Edward & Elizabeth Procter born Feb. 8.
 Sarah of John & Sarah Parker born Jan. 30.
 Hannah of Thomas & Hannah Platts born Jan. 30.
 Benja. of Joseph & Susanna Russell born Mar. 10.
 Esther of Joseph & Esther Roberts born Mar. 25.
 Mercy of John & Rebecca Ransford born May 12.
 Abigail of Ralph & Martha Ransford born Nov. 2.
 Sarah of William & Elizabeth Robie born Dec. 6.
 Elizabeth of William & Eliza. Randall born Dec. 15.
 Hannah of James & Eliza. Raymer born Jan. 19.
 Esther of Isaac & Sarah Robinson born Feb. 14.
 Mehitable of Winsor & Mehitable Sandy born Mar. 10.
 Hannah of Alexander & Sarah Sherrod born Mar. 19.
 William of Rowland & Ann Story born Mar. 30.
 Eliza. of Henry & Elizabeth Spurham born Mar. 13.
 Rachel of Francis & Rachel Smith born Mar. 24.
 John of John & Mary Sharp born May 10.
 Alexander of Roben & Abigail Sears born May 28.
 Eliza. of Josiah & Rebecca Sanders born July 11.
 Samuel of Samuel & Ann Scadlock born July 18.
 Abigail of Seth & Mehitable Smith born Aug. 17.
 Margaret of Thomas & Margaret Savage born Sept. 10.
 John of Joseph & Eliza Skinner born Oct. 3.
 Eliza of Daniel & Eliza Souther born Oct. 16.
 Mary of Jeremiah & Mary Smith born Dec. 4.
 Catharine of Thomas & Margaret Simpkin born Dec. 23.
 John of James & Edde Seward born Jan. 10.
 Samuel of Natha. & Elizabeth Shannon born Jan. 16.
 Joseph of Robert & Esther Sanderson born Jan. 26.
 Susanna of Sampson & Mary Shore born Feb. 13.
 John of Henry & Sarah Smith born Jan. 31.
 Hannah of John & Elizabeth Sunderland born May 17.
 Agnes of James & Mary Townsend born June 26.
 Samuel of James and Mary Truworthy born Aug. 20.
 John of Richard & Elizabeth Tally born Dec. 8.
 Barnet of Richard & Margar. Tuel born Jan. 10.
 Peter of Peter & Mary Townsend born Aug. 26.
 Christopher of Christopher & Joanna Vail born Mar. 19.
 Eliza. of David & Mary Vaughan born July 30.
 Jonathan of Jonathan & Mary Williams born Apr. 26.
 Ann of John & Ann Wiot born July 6.
 Mary of Richard & Mary Ward born Sept. 19.
 Andrew of Andrew & Susanna Willit born Oct. 18.
 Susanna of Thomas & Rebecca Walker born Nov. 18.
 Zechery of Zechery & Mary Wier born Dec. 7.
 Rebecca of Joseph & Elizabeth Wheeler born Dec. 21.
 John of William & Penelope Way born Jan. 24.
 Benja. of Benja. & Ann Wotson born Feb. 16.
 Esther of Thomas & Christian Wallis born Feb. 14.
 William of William & Elizabeth Wheeler born Feb. 23.
 Joseph of Joseph & Lydia Webb born Feb. 18.
 Ann of William & Mary Webstrer born Feb. 24.
 Samuel of Thomas & Sarah Wheeler born Feb. 26.
 John of Edward & Hannah Winslow born Dec. 24.
 Thomas of John & Elizabeth Wakefield born Jan. 5.
 Mary of Richard & Ann West born Feb. 26.
 Mary of Samuel & Ann White born Feb. 18.
 John of James & Esther White born Oct. 8.
 William of John & Elizabeth Welch born Sept. 18.

William Avery of Dedham & Methitabel Worden of Boston were married by Mr. James Allen Aug. 25.

David Adams & Loves Collins were married by Mr. James Allen Dec. 15.

William Adkinson & Sarah White were married by Mr. Miles Aug. 31.

John Brown of Salem & Sarah Burroughs of Boston were married by Mr. Saml Willard Apr. 21.

James Boulderson & Joanna Grey were married by Mr. Saml Willard May. 19.

Roger Burges & Esther Palmer were married by Mr. Cotton Mather Aug. 3.

Alwin Bucher & Elizabeth Barnard were married by Mr. Willard Dec. 15.

Jonathan Barret & Abigail Tuttle were married by Mr. Tho. Cheever Dec. 8.

Thomas Bedle & Mary Harington were married by Mr. Benja. Wodsworth Sept. 20.

James Blin & Margaret Dennison were married by Mr. James Allen Dec. 6.

Daniel Buff & Mary Emblem were married by Mr. Miles May 12.

Francis Brock & Mary Butler were married by Mr. Miles July 29.

John Cotta & Sarah Wharton were married by Mr. James Allen May 4.

Ezekiel Cravath & Elizabeth Hooks were married by Mr. James Allen June 14.

David Crage & Deborah Man were married by Mr. James Allen July 3.

Samuel Clark & Hannah Fairweather were married by Mr. Willard June 23.

John Comer & Mary Pittom were married by Mr. Saml. Willard Feb. 9.

George Courtney & Dorcas Selly were married by Mr. Miles June 2.

John Cox & Joanna Brown were married by Mr. Miles Nov. 18.

John Dolbear & Sarah Comer were married by Mr. Cotton Mather June 9.

John Downing & Hannah Ridgaway were married by Mr. Cotton Mather Sept. 27.

Abner Dole of Newbery & Sarah Belcher of Boston were married by Mr. Tho. Cheever Jan. 5.

Samuel Drown & Elizabeth Morrell were married by Mr. Benja. Wodsworth Feb. 3.

Alexander Dunkan & Eliza. Turnerr were married by Mr. Miles July 6.

John Ellis of Medfield & Mary Hill of Sherbourn were married by Samuel Sewell Esq. Apr. 7.

Robert Ellis & Eliza. Pemberton were married by Mr. James Allen June 4.

Samuel Earle & Mary Condage were married by Mr. Cotton Mather Dec. 13.

Nathaniel Emons & Mary Warmal were married by Mr. Benja. Wodsworth Sept. 15.

William Eggleton & Dorcas Greetian were married by Mr. Miles Sept. 28.

John Elves & Jane Brock were married by Mr. Miles Oct. 6.

John Frissel & Dorothy Parnel were married by Mr. Cotton Mather July 22.

Joseph Flood & Joanna Mitchill were married by Mr. Woodbridge Mar. 10.

John Furs & Jane Wilson were married by Mr. Miles Sept. 21.

Benja. Gold of Hull & Mary Dinely of Boston were married by Mr. Saml. Willard May 5.

Abra. Gourden & Sarah Hodder were married by Mr. Cotton Mather May 12.

John Gill & Elizabeth Parsons were married by Mr. Cotton Mather June 1.

Joseph Green & Mary Beck were married by Mr. Cotton Mather July 30.

Jeremiah Gipson & Mary Hunter were married by Mr. Miles Apr. 13.

Winsor Golden & Eliza Ingolsby were married by Mr. Miles May 14.

Jonathan Hall & Margaret Seward were married by Mr. James Allen June 21.

Joseph Hubbert of Boston & Thankful Brown of Sudbury were married by Elisha Cook Esq. Aug. 4.

John Humphry & Kate Johnson were married by Mr. Cotton Mather June 2.

John Hughes & Deliverance Pallard were married by Mr. Benja. Wodsworth Sept. 15.

Joseph Hill & Elizabeth Peck were married by Mr. James Allen Dec. 22.

Arthur Hughes & Ruth Boulton were married by Mr. Woodbridge Aug. 15.

Isaac Jarvis & Abigail Voden were married by Mr. Woodbridge Jan. 19.

Samuel Jackson & Hannah Mare were married by Mr. Wodsworth Dec. 7.

Isaac Jarvis & Abigail Rowden were married by Mr. Woodbridge Jan. 19.

Samuel Johnson & Mary Stevens were married by Mr. Miles Dec. 20.

Timo. Kemble & Katharine Fowle were married by Mr. James Allen Aug. 18.

Timothy Kimball & Catharine Fowle were married by Mr. Woodbridge Aug. 18.

Samuel Lowel & Rachel Williams were married by Mr. James Allen July 22.

Samuel Lynde & Mary Richardson were married by Mr. James Allen Sept. 15.

Barnabas Lathrop & Abigail Dudson were married by Mr. James Allen Nov. 15.
 Thomas Lilly & Elizabeth Hobby were married by Mr. Cotton Mather June 2.
 Daniel Loring & Priscilla Man were married by Mr. Benja. Wodsworth Feb. 2.
 Simon Lee & Theodor Belcher were married by Mr. Miles Dec. 9.
 Henry Mattock & Diana Souther were married by Mr. Cotton Mather Mar. 3.
 Duncan Makecum & Mary Hore were married by Mr. Willard Dec. 2.
 Thomas Miller & Sarah Day were married by Mr. James Allen July 8.
 Thomas Miller of Dartmouth & Sarah Day of Boston were married by Saml
 Sewell Esq. Aug. 8.
 Nathaniel Prisbury & Elizabeth Ganson were married by Mr. Saml. Willard
 Feb. 16.
 Matthew Pauling & Susanna Walker were married by Mr. Saml Willard
 June 15.
 John Pain & Bethia Hodge were married by Mr. Cotton Mather July 5.
 Jonah Perry & Susanna Shaw were married by Mr. Cotton Mather June 9.
 Theoder Percivah & Elizabeth Morss were married by Mr. Saml Willard
 Jan. 12.
 John Peirce & Mary Cobet were married by Mr. Miles Nov. 9.
 John Plaisted & Sarah Worthilake were married by Mr. Saml Willard Mar. 25
 George Robinson & Sarah Maverick were married by Mr. Cotton Mather Apr. 7.
 Walter Rost & Rebecca Harris were married by Mr. Willard Dec. 29.
 Solomon Ridgeway & Bethia Wit were married by Mr. Miles Apr. 25.
 Joseph Rud & Deborah Areland were married by Mr. Miles May 19.
 Nathani Shaw & Margaret Jackson were married by Mr. James Allen July 12.
 Clement Sumner & Margaret Harris were married by Mr. Cotton Mather
 May 18.
 Samuel Shipard & Alice Mason were married by Mr. Willard July 14.
 John Simkins & Elizabeth Page were married by Mr. Willard Dec. 28.
 John Sanders & Susanna Tomson of Brantry were married by Samuel Sewell
 Esq. May 24.
 Solomon Townsend & Elizabeth Jarvis were married by Mr. Willard June 20.
 William Twing & Ruth Chapin were married by Mr. Willard Jan. 26.
 George Vaughn of Portsmouth & Mary Belcher of Boston were married by
 Mr. Willard Dec. 8.
 John Woodward & Hannah Hide were married by Saml. Sewell Esq. Apr. 11.
 John Wharton & Sarah Ballentine were married by Mr. James Allen Oct. 14.
 Daniel Wear & Lydia Hillier were married by Mr. Cotton Mather Oct. 31.
 Robert Wells of Weathersfield & Mary Stoddard of Boston were married by
 Mr. Willard Oct. 13.
 John Wells & Eliza Bickford were married by Mr. Benja. Wodsworth Oct. 31.
 Joseph Williams & Sarah Layton were married by Mr. James Allen Dec. 9.

Rebecca wife of Jolliff Price Dyed 3 March.
 Sarah wife of Henry Tite Dyed 31 March.
 Francis Ingraham Dyed 31 March.
 Goodman Salter Dyed 25 March.
 John Ransford Dyed April 5.
 Sarah Samson Dyed 19 April.
 Arthur Fustman Dyed 11 April.
 Katharine Dowse an Antiant wido Dyed 14 April.
 Mary wife of Thomas Bedle Dyed 2 April.
 Elizabeth Smith Dyed 11 May.
 Rebecca Daugh. of Rich. Draper Dyed 11 May.
 Eliazer Heaton Dyed 28 May.
 Thomas Merser senr. Dyed 28 May.
 Rachel daughtr of Francis Smith Dyed 17 May.
 William Lavis Dyed 6 May.
 David Websbee Dyed 14 May.
 Jane Barnard Dyed 31 May.
 Goody fox at the Alms-house Dyed 10 May.
 Elizabeth Richardson Dyed 18 May.
 Goody Langly at the Almes-house Dyed 20 May.
 Abigail daughtr of William Parkman Dyed 5 June.
 Agnis daughtr of James Townsend Dyed 30 June.
 James son of Eliza. Allen Dyed 28 June.

Joseph How dyed 9 June.
 Elizabeth wife of David Jeffries Dyed 17 June.
 Christopher of John Kilby Dyed 10 June.
 Mary wife of James Townsend Dyed 8 July.
 William of Wm. Randall Dyed 15 July.
 George Burrel senr. Dyed 5 July.
 Joseph Townsend shopkeeper Dyed 6 July.
 Joseph of Josias & Sarah Byles Dyed 15 July.
 Margaret of Benja. & Hanna Gallop Dyed 11 augt.
 Mis. Eliza. Vsher wife of John Vsher Esqr. Dyed 17 Aug.
 George Monk Dyed 7 Septembr.
 Goodman Bodwell Dyed 6 Sept.
 Sarah threeneedles Dyed 26 Sept.
 Peter of David Jeffries Dyed 14 Septembr.
 Jane wife of Hercules Hewet Dyed 3 Octor.
 Samll Truworthy Dyed 8 Oct.
 Samll of Samll & Priscilla Grice Dyed 10 Oct.
 Joseph Webb Dyed 9 Oct.
 Thomas Smith Dyed 13 Oct.
 Robert Earle Dyed 18 Oct.
 John Allen Dyed 18 Oct.
 Mr Sampson Stoddard Dyed 4 Novembr.
 Samuel Curwin Dyed 16 Nov.
 Philip Wharton at the alms house Dyed 10 Decembr.
 Mary wife of Jeremiah Smith Dyed 14 Dec.
 Rebecca Allen widdow Dyed 25 Dec.
 Ann wife of Samll Smith Dyed 9 Janr.
 Mary Stratton widdow Dyed 3 Februr.
 Sarah of Alexandr & Sarah Prinly Dyed 14 Feb.
 Thomas Greetian Dyed 3 Feb.
 Thomas of Thomas & Abigall Palmer died Dec. 1.

FIRST CHURCH.

Mehitable of John & Mary Conney	Jan. 16.
Benjamin Indicot	Jan. 16.
Susannah Thaxter	Feb. 6.
John Thorn	Feb. 20.
Benjamin Pool	Mar. 6.
Mary of Samuel Bridge	Mar. 13.
Andrew Veach	Mar. 13.
Benjamin Russell	Mar. 13.
Elizabeth Gouch	Mar. 20.
Hannah Sherrerd	Mar. 20.
Sarah Davis	Mar. 27.
Rachel Smith	Mar. 27.
James of John & Elizabeth Allen	Apr. 17.
Jonathan of Jonathan Williams	May 1.
Ann of Thomas Messenger	May 8.
Mary of Brother Jackson	May 29.
Mehitabel Lyon	June 19.
Ruth Cook	July 3.
Theodor Atkinson	July 10.
Joshuah Moodey	July 17.
John of Abigail Hodsden of Ch. of Berwick	July 24.
Catharine of Mary Morehouse of Ch. of Fairfeild	Aug. 7.
Elizabeth Lowel	Nov. 13.
John of Benjamin Dyer	Nov. 27.
James Chevers	Nov. 27.
Marcy of Wm Hallowel	Nov. 27.
Nathaniel of Nat Green	Dec. 4.
Joanna of Joanna Lathrop	Dec. 4.
Priscilla Marriner	Dec. 11.

1699.

TOWN.

Jeremiah of John & Eliza. Allen born June 11.
 Gillam of John & Elizabeth Alden born July 7.
 Ann of John & Elizabeth Alden born July 7.
 Benja. of Joseph & Ann Allen born Aug. 15.
 Joseph of Joseph & Eliza. Adams born Sept. 20.
 Hannah of David & Lois Adams born Feb. 21.
 Jane of Timo. & Rebecca Burbank born Mar. 24.
 Joanna of James & Joanna Boulderston born Mar. 20.
 Adoni of Adoni & Abigail Bulfinch born Mar. 23.
 Benaniwell of Janna & Ann Bowers born Apr. 13.
 Joseph } of James & Elizabeth Babbage born June 8.
 Mary } of James & Elizabeth Babbage born June 8.
 Rebecca of William & Rebecca Briggs born June 30.
 Lydia of Thomas & Lydia Barnes born Aug. 18.
 Ellis of Elisha & Doraty Bennet born Aug. 9.
 William of William & Mary Barndell born Aug. 24.
 Sarah of Benjamin & Elizabeth Brame born Aug. 22.
 Robert of Moses & Elizabeth Bradford born Aug. 30.
 Richard of Joseph & Hannah Billings born Aug. 7.
 Grace of John & Mercy Booker born Sept. 3.
 Rebecca of Thomas & Rebecca Burrington born Sept. 5.
 Ann of Samuel & Sarah Brodge born Sept. 29.
 John of Samuel & Martha Burrel born Oct. 19.
 Elizabeth of Joshua & Esther Barnes born Oct. 19.
 James of Josias & Sarah Byles born Oct. 7.
 James of John & Phebee Brintnal born Nov. 18.
 Rebecca of Peter & Sarah Barbour born Dec. 27.
 Nathaniel of Joseph & Abigail Belknap born Dec. 18.
 Henry of Daniel & Sarah Berry born Jan. 19.
 James of James & Margaret Blin born Jan. 17.
 Peter of George & Lucy Boose (negroes) born Aug. 12.
 Sarah of William & Mary Bowen born June 10.
 Rebecca of Alexander & Margaret Bulman born Feb. 18.
 Agnen of Dundcan & Susana Campbell born Mar. 2.
 James of Samuel & Ruth Clough born Mar. 12.
 Deborah of Daniel & Rebecca Collins born Mar. 4.
 John of Jeremiah & Juda Cushing born Mar. 12.
 Richard of William & Mary Cole born Mar. 10.
 Ebenr. of Ebenezer & Martha Clough born Mar. 19.
 Cluttebuck of Ezekiel & Elizabeth Cravath born Apr. 1.
 Samuel of Samuel & Hannah Clark born Apr. 25.
 Abigail of John & Mary Cutler born May 30.
 Joseph of David & Mary Crouch born May 24.
 Deborah of Thomas & Deborah Cushing born June 17.
 Hannah of Thomas & Mehitabel Cooper born Sept. 4.
 Richard Carter of Joseph & Elizabeth Cowell born Sep. 6.
 John of Samuel & Sarah Clark born Oct. 19.
 Mary of Thomas & Sarah Cox born Nov. 19.
 Sarah of John & Sarah Cotta born Dec. 2.
 Mary of John & Mary Clough born Dec. 27.
 Cleford of John & Elizabeth Cronenfield born Dec. 10.
 Henry of Henry & Elizabeth Camler born Jan. 17.
 Hannah of Richard & Abigail Cheever born Jan. 27.
 John of John & Sarah Cary born Jan. 27.
 Ann of James & Mary Cock born Feb. 10.
 Thomas of David & Patience Copp born Feb. 26.
 Mary of John & Mary Coney born Nov. 11.
 John of John & Mary Carpenter born March 8.
 Tamozine of Christor. & Tamzine Capril born Nov. 17.

Elizabeth of Patrick & Elizabeth Dudgeon born Mar. 23.
David of Edmund & Sarah Dolbear born Mar. 25.
Mary of Samuel & Mary Dyer born Apr. 20.
Thomas of Sampson & Sarah Dewer born June 2.
Edmund of Joseph & Hannah Dolbear born June 14.
John of John & Sarah Dolbear born July 29.
Lydia of Nathaniel & Elizabeth Draper born July 31.
Richard of Richard & Sarah Draper born Sept. 9.
Ebenezer of Edward & Ann Durant born Sept. 20.
Elizabeth of Leonard & Elizabeth Drown born Nov. 2.
Jethro of Elijah & Sarah Doubleday born Nov. 10.
Jonathan of Jonathan & Penelopy Everard born Mar. 19.
Benjamin of Robert & Bethiah Emes born Mar. 30.
Eliza. of John & Elizabeth Eustis born Apr. 6.
Hannah of William & Sarah Eustis born May 23.
Robert of Jonathan & Mary Evans born June 14.
Hezekiah of William & Dorcas Egglestone born July 2.
Nathaniel of Nathaniel & Mary Emons born July 2.
Elizabeth of Jonathan & Martha Farnum born Mar. 28.
Rebecca of Samuel & Rebecca Foster born Apr. 10.
Dorathy of John & Dorathy Farnum born Apr. 27.
Nathan of Richard & Abigail Franklin born July 6.
John of John & Abia Flagg born Oct. 20.
Mary of Joseph & Rebecca Fuller born Oct. 13.
Mary of Alexander & Mary Fullerton born Jan. 9.
Sarah of Josiah & Abiah Frankling born July 9.
Mary of Benjamin & Mary Goold born Mar. 10.
Mary of Samuel & Priscilla Grice born Apr. 1.
Mary of Joseph & Mary Green born May 6.
Mary of Robert & Mary Gibbs born May 28.
John of Nathaniel & Elizabeth Goodwin born July 14.
Elizabeth of Walter & Ann Goodridge born July 30.
John of James & Eliza. Gooch born Oct. 23.
Nathaniel of Samuel & Eliza. Greenwood born Oct. 10.
John of John & Susanna Garret born Jan. 9.
Jacob of Jacob & Elizabeth Goulding born Jan. 11.
Sarah of William & Mary Gold born Feb. 25.
John of Joshua & Eliza. Gee born Feb. 27.
John of John & Eliza Greenough born July 17.
Obediah of John & Elizabeth Gill born Oct. 12.
Esther of John & Esther German born Nov. 28.
Elizabeth of Joseph & Judith Hood born Mar. 29.
Richard of Richard & Elizabeth Hubbard born Apr. 14.
John of Samuel & Deborah Hood born May 18.
Nathaniel of William & Elizabeth Hughs born Aug. 3.
Nathaniel of Nathaniel & Ann Henschman born Nov. 2.
Ann of Jacob & Mary Holoway born Nov. 29.
Thankful of Joseph & Thankful Hubberd born Dec. 25.
Thomas of Robert & Hannah Hannah born Jan. 6.
Naomie of William & Margaret Heppe born Feb. 22.
Hannah of John & Elizabeth Humphrys born Feb. 12.
Eben of William & Mary Hughs born Feb. 7.
Ann of Francis & Rebecca Holmes born July 4.
Charles of John & Ann Hobbie born Apr. 3.
Edward of Samuel & Margaret Haugh born Sept. 19.
Joseph of Joseph & Eliza. Halsey born Mar. 21.
Thomas of Job & Hannah Ingraham born Apr. 4.
David of David & Mabel Jenner born July 4.
Sarah of Samuel & Hannah Jackson born Nov. 5.
Ruth of John & Margaret Jones born Jan. 7.
Abigail of John & Aphiah Jepon born Feb. 17.
Thomas of Thomas & Elizabeth Kellen born Mar. 4.
Katharine of Timo. & Katharine Kemble born July 17.
John of Christopher & Sarah Kilby born Aug. 24.

Katharine of John & Rebecca Kilby born Feb. 10.
 Katharine of Timothy & Katharine Kamble born July 17.
 Andrew of Andrew & Susanna Knott born July 18.
 Michael of Ebenezer & Elizabeth Lowle born Mar. 5.
 Margaret of Thomas & Mercy Lazenby born Mar. 27.
 Isaac of Isaac & Sarah Loring born Apr. 20.
 Benja. of Jonathan & Elizabeth Lambert born June 1.
 Timothy of James & Hannah Mireck born Apr. 6.
 Benjamin of John & Elizabeth Mulligin born Apr. 1.
 Antipas of Thomas & Dorus Marshall born May 3.
 Isaac & } of Robert & Elizabeth Maugridg born June 5.
 Rebecca } of Robert & Elizabeth Maugridg born June 5.
 Incease of Cotton & Abigail Mather born July 9.
 Joseph of Daniel & Mary Mory born July 20.
 Joseph of Robert & Maria Mason born Dec. 19.
 Rebecca of William & Rebecca Man born Jan. 11.
 Catharine of John & Sarah Miles born Jan. 17.
 Christopher of Christopr & Joyce Mynges born Feb. 11.
 Elizabeth of John & Elizabeth Maxwell born Feb. 9.
 Edward of Edward & Sarah Martin born Oct. 22.
 Timothy of Timothy & Ann Mackue born Oct. 20.¹
 Michael of George & Elizabeth Nowell born Mar. 18.
 Joanna of David & Temperance Norton born July 2.
 Thomas of Thomas & Martha Nichols born Sept. 8.
 Hamond of John & Sarah Oliver born June 8.
 Abigail of Edward & Abia Porter born Mar. 9.
 Thomas of Thomas & Mary Pratt born May 6.
 Elizabeth of William & Deborah Philips born June 3.
 Sarah of William & Mary Pain born July 16.
 Sarah of John & Sarah Plasted born July 21.
 Jacob of Jacob & Rachel Peirce born Oct. 27.
 Sarah of Jonah & Rebecca Perry born Oct. 10.
 Sarah of Mathew & Sarah Pauling born Nov. 25.
 Nathan of Nathan & Elizabeth Presbery born Dec. 20.
 Lydia of Robert & Hannah Price born Jan. 17.
 John of Obediah & Mary Perry born Feb. 23.
 John of John & Bethiah Pain born Apr. 18.
 Aseph of Isaac & Elizabeth Royal born May 1.
 John of John & Martha Ruggles born May 9.
 John of Gyles & Margaret Roberts born Aug. 26.
 Joseph of Mark & Sarah Round born Sept. 4.
 Abigail of John & Hannah Ruck born Sept. 11.
 Joseph of Joseph & Sarah Rayner born Sept. 28.
 Walter of Walter & Rebecca Rost born Oct. 6.
 Samuel of Samuel & Mary Russell born Oct. 26.
 Abigail of Joseph & Mary Russell born Oct. 30.
 Simeon of Joseph & Elizabeth Rogers born Feb. 18.
 John of Josiah & Mary Stone born Mar. 2.
 Rebecca of Joseph & Rebecca Snelling born Mar. 5.
 Mary of William & Martha Shute born Mar. 1.
 Dorothy of John & Mary Stover born Mar. 23.
 William of Clement & Margaret Summers born Mar. 18.
 Henry of Richard & Sarah Sherren born Mar. 28.
 Hannah of Cyprian & Elizabeth Southack born Apr. 10.
 Rely of John & Rely Simpson born Apr. 4.
 Eliner of Sanders & Rebecca Seers born May 7.
 Margaret of Natha. & Margaret Shaw born May 12.
 Nathaniel of John & Mary Sunderland born June 15.
 Thomas of Daniel & Elizabeth Stoddard born July 13.
 David of John & Jane Smith born Aug. 19.
 Thomas of Thomas & Deborah Smith born Aug. 17.
 James of James & Susanna Studson born Sept. 11.

¹ By a slip of the pen this birth was recorded as of 1669. — W. S. A.

Benja. of Thomas & Mehitabel Savage born Oct. 8.
 Elizabeth of Joseph & Elizabeth Simpson born Oct. 3.
 Benjamin of John & Ann Smith born Nov. 5.
 Benjamin of John & Bridget Salsbury born Nov. 7.
 Ann of Joseph & Hannah Simpson born Nov. 9.
 Sarah of Joshua & Sarah Sectow born Nov. 8.
 Samuel of Benja. & Joanna Stone born Dec. 30.
 Isaac of John & Jane Snelling born Jan. 3.
 Rebecca of Rowland & Ann Story born Feb. 1.
 Paul of George & Jane Siry born Feb. 7.
 Sarah of Samuel & Ann Scadlock born Feb. 8.
 Benja. of Benjamin & Jemina Snelling born Feb. 14.
 Martha of John & Martha Thwing born Mar. 24.
 Mary of Thomas & Elizabeth Townsend born Mar. 28.
 Samuel of Samuel & Lydia Turel born Apr. 8.
 Jonathan of Jonathan & Elizabeth Townsend born June 25.
 Benjamin of William & Ruth Thwing born Sept. 22.
 Abigail of Thomas & Sarah Thomlin born Oct. 31.
 William of William & Hannah Turner born Dec. 12.
 Benja. of Benjamin & Mercy Tout born Feb. 27.
 James of James & Rebecca Townsend born Feb. 21.
 John of Christopher & Joanna Veal born Mar. 13.
 Febee of Richard & Febee Vitterridge born Apr. 9.
 Mary of John & Mary Vial born May 22.
 Amos of Amos & Elizabeth Wadland born Mar. 1.
 Elizabeth of Nathl & Mary Wheeler born Mar. 7.
 Robert of Rachel & Thomas Winsor born Apr. 16.
 Hannah of Joseph & Hannah Wodsworth born May —
 Thomas of Thomas & Sarah Warren born June 11.
 Abraham of James & Sarah Williams born June 21.
 Davis of Francis & Mary Whiteman born July 13.
 Deliverance of John & Elizabeth Wakefield born Aug. 17.
 Abigail of William & Abigail Waters born Sept. 6.
 Ebenezer of Ebener & Deliverance Weeks born Sept. 17.
 Thomas of Thomas & Sarah Webb born Sept. 14.
 Joseph of Joseph & Sarah Williams born Sept. 21.
 John of John & Elizabeth Wilkins born Oct. 20.
 Hannah of James & Elizabeth Wakecom born Oct. 21.
 Hannah of Thomas & Triphene Woodward born Nov. 9.
 Mary of Samuel & Mary Ward born Nov. 19.
 Catharine of Jonathan & Catharine Wardall born Dec. 21.
 Jonathan of Jonathan & Mary Williams born Jan. 8.
 Matthew of Matthew & Jane Walter (negroes) born Feb. 7.
 Allen } of Andrew & Elizabeth Waker born Feb. 19.
 Eliza. } of Andrew & Elizabeth Waker born Feb. 19.

The following birth was not recorded till 1705, and therefore not found in time for its proper place. — W. S. A.

Joseph of Timothy and Margaret Prout born Feb. 4, 1651.

These two births, recorded in 1719, unfortunately missed their proper places. — W. S. A.

Phebee of John & Phebee Brentnall born Nov. 22, 1691.

John of John & Phebee Brentnall born Nov. 3, 1693.

The following births happened between 1600 and 1700, but the year is in no case written. — W. S. A.

Eliza. of Nathaniel & Hebhsibah Alden born ———.

Hebhsibah of Nathaniel & Hebhsibah Alden born ———.

Richard of George & Elizabeth George born Mar. 30.

Nathanl of Samuel & Mary Greenwood born Apr. 29.

Thomas of Thomas & Elizabeth Kellen born July 1.

Christian of Robert & Christian Mason born Feb. 22.

Abigail of John & Sarah Mason born Apr. 12.

Sarah of John & Experience Roberts born Apr. 17.

Joseph of Joseph & Elizabeth Rogers born ———.

- Francis Alexander & Sarah Kirk were married by Mr. Miles Mar. 13.
John Ashbury & Eleanor Griffen were married by Mr. James Allen Oct. 18.
David Anderson of CharlsTown & Hannah Philips of Boston were married by Mr. Samuel Willard Jan. 5.
Isaac Adams & Martha Stocker were married by Mr. Samuel Willard Jan. 4.
Jonathan Blake & Elizabeth Candage were married by Mr. Cotton Mather Feb. 16.
Nicholas Buttolph & Mary Guttridge were married by Mr. James Allen June 28.
Timothy Batt & Sarah Tudman were married by Mr. Saml Willard Aug. 3.
John Bonner & Persis Wanton were married by Mr. Saml Willard Sept. 28.
John Bennet & Sarah Harris were married by Mr. Saml Willard Oct. 25.
John Barret & Sarah Eustace were married by Mr. Cotton Mather Sept. 28.
Richard Bignell & Abigail Lawrance were married by Mr. Cotton Mather Nov. 2.
Joseph Bond & Elizabeth Prentice were married by Saml Sewell Esq. Nov. 13.
Samuel Baker & Febee Eglington were married by Saml. Sewell Esq. Dec. 19.
Thomas Bill & Agnis Batchelder were married by Mr. Woodbridge Nov. 23.
Francis Bruno & Sarah Vringe were married by Mr. Miles Jan. 26.
Alexander Chamberlin & Sarah Tinny were married by Mr. James Allen Apr. 20.
Robert Calfe & Margaret Barton were married by Mr. James Allen Dec. 23.
Charles Chancy & Sarah Wally were married by Mr. Saml. Willard Oct. 19.
Mathias Clark & Ann Barton were married by Mr. Saml. Willard Dec. 25.
Micah Coars & Rachel Short were married by Mr. Cotton Mather July 7.
Richard Collier & Mary Jarvis were married by Mr. Cotton Mather Jan. 25.
John Carter & Pilippe White were married by Mr. Benj. Wodsworth Nov. 6.
William Cotton & Ama Carter were married by Mr. Benja. Wodsworth Nov. 6.
William Clear & Bethiah? Greenleaf were married by Mr. Benj. Wodsworth. Dec. 21.
Edmund Cross & Martha Dammon were married by Saml. Sewell Esq. Apr. 21.
Abioe Christen & Sarah Tylestone were married by Saml. Sewell Esq. Jan. 18.
Francis Caswell & Priscilla Tapril were married by Mr. Miles Aug. 18.
Thomas Copeland & Mary Arnold were married by Pen Townsend Esq. May 17.
Ebenezer Dennis & Damaris Robinson were married by Mr. Cotton Mather May 3.
Barret Dyer & Hannah Stewart were married by Mr. Cotton Mather June 29.
William Danil & Dorothy Bud were married by Mr. Benj. Wodsworth Sept. 27.
Isaac Decoster & Mary Temple were married by Mr. Benja. Wodsworth Nov. 2.
Thomas Degresha & Agnes Cracker were married by Mr. Cheever Mar. 16.
Jonathan Eustice & Sarah Scholly were married by Mr. Cotton Mather Nov. 16.
Obadiah Emons & Judith Hubberd were married by Mr. Benj. Wodsworth Nov. 7.
John Foy & Sarah Lynde were married by Mr. Saml. Willard Nov. 16.
Nathaniel Freeman & Alice Penuel were married by Mr. Cotton Mather Jan. 18.
William Francis & Triphena Yelling were married by Mr. Miles Apr. 29.
Daniel Fize & Sarah Lambert were married by Mr. Miles Nov. 6.
John Forbee & Penelope Leigh were married by Mr. Miles Dec. 4.
Jeremiah Fenwick & Eliza. Steadford were married by Mr. Miles Jan. 3.
Samuel Gidings of Ipswich & Elizabeth Sample of Boston were married by Mr. Samuel Willard Nov. 8.
Tobias Green & Mary Gent were married by Mr. Samuel Willard Nov. 17.
Benjamin Gipson & Mehitable Astin were married by Mr. Cotton Mather Jan. 4.
Edward Gipson & Ruth Comer were married by Mr. Cotton Mather Jan. 11.
John George & Hannah Grover were married by Mr. Benja. Wodsworth Aug. 22.
Thomas Gyles & Martha Bill were married by Mr. Cheever Jan. 18.

- William Gold & Mercy Harris were married by Mr. Miles Apr. 16.
 Edward Gray & Susanna Harrison were married by Pen Townsend Esq. Aug. 11.
 Benjamin Hobart & Susanna Newcomb of Brantry were married by Saml. Sewell Esq. Apr. 5.
 Elias Heath & Eliza Eldridge were married by Mr. James Allen May 13.
 Atherton Haugh & Mercy Winthrop were married by Mr. Saml. Willard July 11.
 Peter Hoxworth & Elizabeth Stephens were married by Mr. Saml. Willard Feb. 27.
 Williams Hicks & Christian Harper were married by Mr. Miles Nov. 27.
 Thomas Hayne & Rebecca Green were married by Mr. Miles Jan. 9.
 Edward Hill & Mary Archer were married by Mr. Miles Feb. 15.
 John Hog & Eliza Lewis were married by Mr. Miles Feb. 22.
 William Huse & Ann Russell were married by Pen Townsend Esq. Aug. 17.
 Samuel Hinckley & Martha Lathrop were married by Pen Townsend Esq. Sept. 29.
 John Jackson & Susanna Hayden were married by Mr. Benja. Wodsworth May 19.
 John Jones & Margaret Bull were married by Saml. Sewell Esq. May 29.
 John Jordon & Mary Frizell were married by Pen Townsend Esq. Oct. 4.
 Samuel Keeling & Elizabeth Oliver were married by Mr. Samuel Willard Sept. 14.
 Thomas Loring of Plimouth & Deborah Cushing of Cituate were married by Saml. Sewell Esq. Apr. 19.
 Thomas Lamere & Hannah Hodge were married by Mr. Cotton Mather Aug. 11.
 John Lowery & Mary Davis were married by Mr. Benja. Wodsworth Nov. 13.
 Benja. Loyd & Mary Dinsdell were married by Mr. Benja. Wodsworth Jan. 17.
 John Lawson & Ann Evers were married by Mr. Miles Dec. 28.
 Timo. Mackhew & Ann Dry were married by Mr. Saml. Willard May 15.
 John Marshall & Sarah Webb were married by Mr. James Allen May 26.
 Joseph Merrifield & Mary Rogers were married by Mr. Benja. Wodsworth Apr. 6.
 John Noyes & Susanna Edwards were married by Mr. Sam. Willard Mar. 16.
 Robert Nokes & Mary Emerson were married by Mr. Samuel Willard Aug. 17.
 William Oorson & Mary Ellis were married by Mr. Miles June 27.
 Obadiah Procter & Margaret Gardner were married by Mr. James Allen Aug. 24.
 Joseph Plimpton & Priscilla Parterage or Parteridg were married by Pen Townsend Esq. Aug. 22.
 Thomas Perry & Ruth Ripley were married by Pen Townsend Esq. Jan. 29.
 John Richardson & Margaret Woodmansey were married by Mr. James Allen June 22.
 Nathaniel Rogers of Portsmouth & Sarah Perkis were married by Mr. Saml. Willard Oct. 26.
 William Randol & Elizabeth Skerry were married by Mr. Saml. Willard Dec. 21.
 Nathaniel Roring & Susannah Butler were married by Mr. Cotton Mather Dec. 13.
 Adam Read & Margaret Denkin were married by Mr. Miles Jan. 11.
 Benja. Stapils & Mary Cox were married by Mr. James Allen May 26.
 Wigleworth Switser & Ussillah Coles were married by Mr. James Allen Feb. 2.
 John Sparhawk of Bristol & Elizabeth Pool were married by Mr. Saml. Willard June 22.
 William Snowton & Rachel Woodward were married by Mr. Saml. Willard June 28.
 Jeremiah Smith & Ann Peather were married by Mr. Saml. Willard Dec. 21.
 John Smallpeice & Olive Furnel were married by Mr. Miles Apr 7.
 John Stodder & Mary Jay were married by Mr. Miles Nov. 14.
 William Smith & Mary Perry were married by Mr. Miles Jan. 8.
 William Taylor & Sarah Byfield were married by Mr. Sam. Willard Mar. 2.
 Samuel Torry & Abigail Bridge were married by Mr. James Allen June 29.
 John Titchborn & Sarah Allin were married by Mr. James Allen Aug. 17.

Peter Thatcher of Milton & Susanna Bayley of Boston were married by Mr. Saml. Willard Dec. 25.

James Talbot & Elizabeth Blore were married by Mr. Saml. Willard Dec. 25.

John Tyler & Deborah Leatherland were married by Mr. Cotton Mather Nov. 2.

James Thornbury & Lydia Curtice were married by Mr. Woodbridge Sept. 14.

Francis Traveres & Mary Burgess were married by Mr. Miles Jan. 27.

James Turberfeeld & Mercy Campball were married by Jeremiah Dummer Esq. Dec. 6.

John Venteman & Elizabeth Smith were married by Mr. Cotton Mather July 13.

Samuel Wentworth & Abigail Goffe were married by Mr. James Allen Oct. 28.

Richard Wale & Hannah Skerry were married by Mr. Saml. Willard Dec. 21.

Joshue Wells & Sarah Savage were married by Mr. Saml. Willard Dec. 25.

Richard Whites & Elizabeth Rust were married by Mr. Saml. Willard Jan. 4.

William Webber & Mary Sumer were married by Mr. Cotton Mather Sept. 19.

Nathaniel Witherly & Sarah Burgis were married by Mr. Cotton Mather Dec. 10.

George Walker & Rebecca Davenport were married by Benja. Wodsworth Oct. 5.

Joshua Week & Comfort Hubberd were married by Mr. Benja. Wodsworth Nov. 7.

Joseph Webb & Deborah Bass were married by Saml. Sewell Esq. Nov. 29.

Francis Whitmore & Ann Peirce were married by Mr. Woodbridge Dec. 7.

James Wiborn & Mary Graford were married by Mr. Miles Jan. 11.

Joshua Wight & Elizabeth Spowel were married by Pen Townsend Esq. Oct. 4.

Thomas Sudder & Sarah Phillip were married by Mr. James Allen Nov. 3.¹

John of Samll & Hannah Marion Dyed 1 March.

Jonathan of Jona. & Martha Williams Dyed 22 March.

Joanna Rawlings Dyed 22 March.

James of William Thornton Dyed 15 April.

Susanna wife of Jona. Balston Dyed 17 April.

Rebecca Daugthr of Jer. Belcher of Rumney Marsh Dyed 21 April.

John of Edward Winslow Dyed 22 April.

Sarah Mosure Daught. of Wido. Mosure Dyed 23 April.

Samll of Joseph & Ann Johnson Dyed 22 April.

Cristopher Goffe Dyed 1 May.

Ann wife of William Copp Dyed June 6.

Sarah Daught. of Constant Alcock Dyed 11 June.

Elizabeth of Ephraim & Sarah Savage Dyed 25 June.

Mary Buck Dyed 21 June.

Nathon of John & Mary Sanderson Dyed 22 June.

Nathon Belcher Dyed 3 July.

Thomas of Thomas & Hanna Eaton Dyed 9 July.

Michael of Ebenr & Elizabeth Lowle Dyed 7 July.

David of David & Mabell Jenners Dyed 22 July.

John of Jeremiah & Judeth Cushing Dyed 27 July.

Mr. Peter Butler Dyed 11 Aug.

Mary of Samll & Eliza. Gardner Dyed 25 Aug.

Eliza of William & Mary Wilson Dyed 31 Aug.

Capt. Laurance Hammond Dyed ye 29 Aug.

Ann of Jacob & Mary Holoway Dyed 16 Aug.

Samll of William & Mercy Brown Dyed 9 Septemr.

Ann of Joseph & Hannah Simpson Dyed 3 Septemr.

Abigail wife of William Waters Dyed 12 Sept.

Samll Baker was drowned 24 Sept.

Mary of Simeon & Mary Stoddard Dyed 20 Sept.

Tamazon Scarlet dyed 20 Octor.

Joanna of John & Joanna Lathrop Dyed 1 Octobr.

William of Roland & Ann Story Dyed 7 Oct.

Mary of Samll & Mary Ward Dyed 29 Novembr.

¹ This marriage took place before 1700, but the year is illegible. — W. S. A.

Ann of Joseph & Hannah Simpson Dyed 20 Nov.
 Ebenezer of Ebenr & Martha Clough Dyed 6 Nov.
 Elizabeth of Joseph & Eliza Simpson Dyed 6 Decemr.
 Mary Daughtr of Thomas Perkins Dyed 1 Janr.
 John Orris Dyed 19 Jan.
 Thomas of John & Sarah Vickers Dyed 21 Janr.
 Jacob Smith Dyed 12 Jan.
 Joseph of Daniel & Susanna Mory Dyed 24 Jan.
 George Ball Dyed 15 Jan.
 Thomas Peck senr. Dyed 3 Februr.
 Joseph of Joseph & Elizabeth Halsey died 29 March.
 Nathaniel of Samuel & Eliza Greenwood died 6 Jan.

The following death, recorded in 1710, unfortunately missed its proper place. — W. S. A.
 Eliza. of Samuel & Eliza. Greenwood dyed within its moneth 2 Nov. 1687.

The following death was not recorded till 1714. — W. S. A.
 Margaret wife of Timothy Prout died 29 Oct. 1685.

FIRST CHURCH.

Elizabeth Endicott	Jan. 1.
Samuel Baylie	Jan. 8.
Hannah of Eleanor Pollow (negro)	Jan. 15.
Alford of Peter Butler	Feb. 5.
Sarah of John Parker	Feb. 5.
James Cunningham	Feb. 19.
Nicholas of Mary Phillips	Feb. 19.
Anna of Mary Webster	Feb. 19.
Abigail of James Hawkins	Feb. 26.
Amos Wadlin	Mar. 5.
Mary Barret	Mar. 5.
Jonathan of Jonathan Everard	Mar. 26.
Martha of John Twing	Mar. 26.
Thomas Ingram	April 9.
Elizabeth Eustice	April 9.
Timothy Myrick	April 9.
Samuel of James & Mary Ferres	April 9.
Mary of James & Mary Ferres	April 9.
Sarah of James & Mary Ferres	April 9.
Anna of James & Mary Ferres	April 9.
Katharine of Wm Welsted	April 23.
Robert of Tho. Windsor	April 23.
Ebenezer Delver	April 23.
Thomas of Samson Dure	June 4.
Jeremiah of John & Elizabeth Allen	June 11.
Ebenezer Reynolds	June 25.
Mary Waldo	Aug. 6.
John of John & Elizabeth Ranger	Aug. 20.
John of Giles & Margaret Roberts	Aug. 27.
Robert of Moses & Elizabeth Bradford	Sept. 3.
Benjamin of Thomas Savage the Goldsmith	Oct. 8.
John of James Gooch	Oct. 29.
Joseph Hill a varnisher's son	Nov. 5.
Mary of John & Mary Coney	Nov. 12.
Mary Ward a coopers daughter	Nov. 26.
James Thorn a carpenter's son	Dec. 31.
Thankfull of Joseph & Thankfull Hubbard	Dec. 31.

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ORATION

BY

HIS HONOR

ALBERT PALMER

MAYOR OF BOSTON

DELIVERED BEFORE THE

SUFFOLK COUNTY ASSOCIATION OF THE
GRAND ARMY OF THE REPUBLIC

IN

FANEUIL HALL

ON

DECORATION DAY, MAY 30, 1883



Boston

PRINTED BY ORDER OF THE CITY COUNCIL
1883

ROCKWELL AND CHURCHILL,

City Printers,

39 Arch Street, Boston.

CITY OF BOSTON.

IN BOARD OF ALDERMEN, June 11, 1883.

Ordered, That His Honor the Mayor be requested to furnish a copy of the Address delivered by him in Faneuil Hall, on Decoration Day, May 30, 1883, before the Suffolk County Association of the Grand Army of the Republic, and that the same be printed as a City Document or otherwise, under the direction of the Committee on Printing; the expenses to be charged to the appropriation for Printing.

Passed in Common Council.

Came up for concurrence. Concurred.

Approved by the Mayor, June 16, 1883.

A true copy.

Attest :

JOHN T. PRIEST,
Assistant City Clerk.

ORATION.

*Soldiers of the Grand Army of the Republic and
Fellow-Citizens:—*

Love's annual pilgrimage to the shrines of Liberty has once more been performed. With reverent hands and grateful hearts we have strewn the floral wealth of another spring-time on the graves of the nation's saviors. Mediæval Europe sought the inspirations of its valor and its virtue in the sacred sepulchre of Jerusalem. The chivalry of Britain, of France, of Germany, and of Spain, alike turned its eyes to Palestine and named it for all time the Holy Land. But each recurring May reminds us that every city in this broad Union of ours has its Holy Lands,—the sleeping-places of the redeemers of the republic,—the Palestines of American patriotism, forevermore. We are not here to-day in the spirit of sadness. The grief of personal loss has almost spent itself; a few years more and the last tear of the last mourner will have dropped and dried. The gloom of these graves is gone; their glory still remains. There is

pathos in the receding ranks of that Grand Army of the Republic whose survivors are, year by year, counted by smaller and still smaller figures. The man of middle age, who answered the summons of Sumter, is now, if living, an old, gray-haired man; the youth of twenty-one then is in the forties now; and a whole train of tender reflections follows the thought that, when another period of time equal to that which has already passed since the war began shall have become a part of the past, the orator who shall then fill the place I occupy to-day will be able to repeat to the few heroes of the strife who shall then be left to listen to him, those immortal words of Webster, when, on Bunker Hill, on the 17th of June, 1825, he turned to the handful of veterans who had outlived the fifty years since the first battle of the revolution was fought, and exclaimed, "Venerable men! you have come down to us from a former generation." Already we are separated from that mighty drama, in which the dead whom we honor this day played their glorious part, by almost a quarter of a century. The burden of individual bereavement lightens, but the debt of national gratitude grows weightier, with every passing year. Hitherto we have given them tears and flowers, mingling the waters of our hearts with the fragrance of the lily and the violet. Tears and flowers! — tears for a time,

flowers for all eternity. When Mother Earth shall have gathered into her bosom the last friend of the last soldier who "marched with Sherman from Atlanta to the sea," rallied to Sheridan's immortal ride, or fought with Grant in the Wilderness, the mounds in yonder cemetery, though no longer bedewed with the rain of human sorrow, shall still bloom with the flowers cast upon them by a grateful posterity. The largess of a thousand New England springs yet to come is already under mortgage to the graves of the men who died that the republic, "one and indivisible, now and forever," might live. And, as each succeeding May robes our New England hills with verdure and decks her vales with flowers, the true grandeur of their work shall be more accurately apprehended and more profoundly appreciated.

WHAT MEMORIAL DAY MEANS.

The full meaning of this anniversary, the manner of men whose deeds it recalls, the vast value of those deeds, the immeasurably precious results which they secured for us, and for all who shall come after them, is even yet but dimly apparent. Seen in its immediate shadow, even the great pyramid seems a pigmy. So the pyramidal events that loom up on the plain of history need distance and perspective

before their entire greatness flashes out on the horizon of the human mind. The war in which you veterans of the Grand Army participated with your comrades whom you remember this day was too great an event, its issues too majestic, its stake too stupendous, its decisions too heavily freighted with the fate of the generations yet unborn, to be more than dimly comprehended by the men who were the contemporary witnesses of their and your heroic sacrifices. This but repeats the common experience of the race. The men who sailed in the Mayflower drew up in her cabin a mutual covenant for their common government, and landed without dreaming that they had outlined the charter of the New World's liberties. To the men who charged with Rupert, or with Cromwell, at Naseby, it was a fierce fight between Cavalier and Roundhead ; but parliamentary government was between their sword-blades, and manhood suffrage loomed up as divine right went down. The Concord farmer who, in April, 1775, left his plough and seized his flintlock, had no idea that he was laying the foundations of the mightiest confederation of free commonwealths the world had ever seen. Waterloo was a great fight, meaning only glory to Napoleon, and duty to Wellington, and, to their wisest contemporaries, little more than the deciding throw of the dice in a game between

two captains. It was not till a generation had passed that men looked back to those Belgian fields, and saw that there dawned the natal day of a new dispensation, which transformed the whole face of modern Europe. Wellington had slept a quarter of a century in Saint Paul's, and the captive of St. Helena was but a meteoric memory, before Hugo seized his pen and wrote under Waterloo: "The hinge of the nineteenth century." The men of the Mayflower have had their Hildreth and Palfrey; Cromwell and his Ironsides have had their Macaulay and Carlyle; the men of Lexington and Concord and of Bunker Hill have had their Bancroft, and Waterloo has found its Hugo; but it may be doubted if the historian is yet born to whose pen it shall be given to do justice to that long panorama of mightier war, which stretched from Sumter to Appomattox the sanguinary succession of its terrific conflicts.

A CENTURY OF GREAT WARS.

We live in an age of great wars. The nineteenth century will be known in history as the century of colossal conflicts. I know that there be those who claim for it preëminence in art and in literature, and still more who believe it to outrank all the centuries that have preceded it, for the number, variety, and

value of its scientific discoveries. Nevertheless, when all its triumphs in the domain of art, all its trophies from the field of literature, and all its amazing conquests in the realm of science, have been recounted, I still venture the opinion that the cycle of time in whose last quarter we now stand will be distinguished, above all else, for the number, the magnitude, and, still more, for the momentous results of its wars. The smoke of battle hangs over it like a never-lifting pall, and its records are written with bayonets for pens, and blood for ink. One of the standing anachronisms that will challenge the philosopher's analysis and point the cynic's sneer will be this nineteenth century of ours, in which the greatest strides of civilization and the most appalling lapses into the barbarism of war have been simultaneously witnessed. The age of Elizabeth of England was great. It has been called, indeed, the golden age in point of learning. Its literature was brilliant, its poetry magnificent, its contributions to the arts and sciences many and important. But the era which, borrowing the English designation, we call the Victorian age, if we omit Shakespeare, -- who belonged to no age, but was, and is, for all time, -- is incomparably greater in all these respects. If it rested its claim to progressive preëminence among the centuries alone upon the introduction of steam as a motor, by land and by sea, I opine that, judged by results, it would have

to be admitted; but when to this is added the invention of the electric telegraph, the submarine cable, and the as yet but half-developed telephone; and to this again all the manifold adaptations of machinery, alike to agriculture and to manufactures, there can be no question that the current one hundred years have done more to elevate the general plane of human existence than all the eighteen centuries of the Christian chronology that went before. And yet, with all these astounding achievements, with a redundant and ornate literature, a poetry rich, copious, and for the most part distinctly humane in its inspiration, with a free and cheap newspaper press constantly throwing its weight into the scale of liberal and philanthropic thought, this has been, and is, first of all and above all, the age of physical combat, of awful, majestic, unparalleled war. Mars is its presiding planet, and the forge of Vulcan lights it up with the lurid glare of phenomenal fires. For Europe and America alike it has been a period of violent solutions. Waterloo, Sebastopol, Magenta, Solferino, Mentana, Sadowa, Sedan, Plevna, — these are the blazing words of the Old World since this century began. Every one of them recalls a catastrophe and marks an epoch. Out of them a new Europe partly emerged, — a united Germany, a united Italy, a republican France, an emancipated Russia, a restored Hungary, a reformed

Austria, a nascent Greece, and a dying Turkey. It is a vivid chapter in the history of the Old World which records these vast changes, and the soldier is the author of it all, from the first word to the last. But, imposing as it is, the war of the American rebellion in this century of great wars will forever stand, above all the struggles that preceded or followed it, most worthy of the title which Greeley has given it, "The Great Conflict."

It was indeed great, transcendently and sublimely great. Waterloo was the last move in a chess-game between one great man and several small kings. Sadowa was a duel between two great kings to apportion the plunder of a small one. Sedan, the noblest of the three, was, after all, but an affair of two emperors, and the republic of France was its accidental outcome, not its avowed stake. There was no accident in the "great conflict" in which the graves we have this day garlanded anew were made. Great conflicts are, to vary an old proverb, born, not made. This was born with the republic itself. The seeds of it were planted in the constitution itself, watered by two generations of controversy, and strengthened by the procession of events, until it became, in the undying phrase of Seward, "an irrepressible conflict." There was no vagueness or uncertainty about its nature; no indefiniteness about

the issue. It was not the caprice of two jealous kings quarrelling over a point of diplomatic etiquette; nor was it the bubbling passion of a boulevard mob, shouting "À Berlin! À Berlin!" that carried thirty millions of freemen into the conflict, whose proud, yet tearful, memories hallow this hour.

WHAT THE NORTH AND SOUTH FOUGHT FOR.

We fought, North and South alike, neither for empire nor for territory; the impulse was neither glory nor greed. We fought only as free peoples, who are enlightened as well as free, can be induced to fight, — for a cause that embodied a principle, and had for its soul an imperishable idea. I speak now of the men who fought on both sides. The time has come when the men of the victorious North can concede so much to the men of the vanquished South. What, indeed, do we concede in saying this? Victor Hugo, sweeping with his poetic eye the broken barricades of Paris after the civil conflict of 1848, exclaims, in a burst of generous generalization: "The dead are right and the living are not wrong." That is poetry, emotion, sentiment; but it is not truth. We hold no such lax philosophy. The right and the wrong in the great American conflict are forever distinctly distinguishable, and woe to him who shall utter one syllable to confuse

them together, or unsettle the judgment that was finally rendered by the God of Battles. But, yielding nothing, imperilling nothing, we may, nevertheless, admit, nay, we must claim it for the credit of the common heritage of free institutions which we both enjoyed together until 1861, and which, under God, we now hope to share together until the heavens and the earth shall pass away, that the insurgent armies of the South, equally with the armies of the republic, followed, not only a flag, but an idea; fought, not merely for their section, but for a sentiment; contended for what to them was a sacred principle. The idea was false, the sentiment was mistaken, the principle was wrong.

We may not now, nor may we ever, admit that they were right; but we can admit now that the great mass of them honestly, sincerely, and with a passionate earnestness which seemed to their blinded vision to be the truest patriotism, mistook the wrong for the right, and gave to the deadly heresy of treason the hospitable shelter of honest hearts and all that brave men have to give when the ripest conviction whispers its majestic inspiration to the rarest courage. So much we may admit; nay, so much we are proud to claim. We were one nation before the war; we are one nation since the war; and we were one people, sons of a common lineage, descendants of the same sturdy stock, inheritors and custodians of the same institu-

tions, throughout the war. In all the sad records of those four years of fratricidal strife there is one page, at least, to which we may always turn with admiration and peruse with pride. In the maddest hour of rebellion, when one Southern State after another entered the arena of armed insurrection, the founders of the Confederate government turned, as by an instinct too strong to be resisted, to the archives of the Union which they sought to dissolve, and promulgated a constitution, borrowed in most of its essential features from, and following in large part the literal language of, the constitution which they repudiated. There was a tribute in that act, more eloquent than words, to the depth to which the cardinal democratic doctrines, the basal republican principles, on which this government is founded, had struck root. Passion had silenced reason, national sentiment was stricken dumb by sectional interest, State pride raged supreme over fealty to the Union, and treason ruled the hour.

A FACT TO BE REMEMBERED.

But let us remember with thankfulness, and glory in the recollection, that, while there was treason to the federal flag, treason to the federal government, treason to the federal constitution, there was never treason to the fundamental faith of the fathers of the

republic in the republican or democratic form of government. In the whole length and breadth of the revolted States there was one phrase that even the lips of treason could never unlearn, — “We, the people.” No man in the whole domain of secession ever suggested a monarchy, an empire, or a dictatorship; but all, even in the wildest frenzy of that desperate hour, united in declaring that the new government, which they sought to establish on the ruins of the old, must rest on the same foundations on which Washington, Jefferson, Adams, and Madison had reared the original edifice of the Union.

Here, indeed, was an insurrection without a parallel. It stands unique among all recorded revolts against constituted authorities in this important point, — and it is a point of difference which has never, in my belief, received the emphasis which belongs to it, — that it was not aimed at a change in the generic character or the distinctive form of the existing government. It did not propose to substitute a monarchy for a republic, to proclaim an absolute empire in place of constitutional government, to exchange the simple chair of the chief magistrate for the gilded throne of a king. It did not even propose to materially change the methods of election. It preserved intact all the names and symbols of popular government, perpetuated the current forms of parliamentary procedure, and, in short, copied its

organic law, almost line for line and letter for letter, from the government which it sought to overthrow. There is no other example in all history, of which I am aware, of a revolution which, in the event of its success, would have had for its final result the establishment of a new government, modelled, with an almost perfect fidelity to details, upon the government against which it was directed. When Englishmen commenced the revolution of 1642 they aimed at a radical change in the very fabric of their government, and the final triumph of the Parliament over King Charles saw the end of the prerogative of kings and the beginning of the prerogative of the people. When that struggle was concluded there was a protector where before there was a king, a commonwealth where before was an absolute monarchy, and the seat of political power in the British realm had passed forever from the royal palace to the House of Commons, where it still remains. When the French revolutionists of 1792 took to the streets, they meant to change, and they did change, the organic structure of their government. A monarchy disappeared and an aristocracy was annihilated with Louis XVI.; a republic rose and a Democracy was created with Mirabeau and Robespierre. The numerous revolutionary risings which have taken place in France, in Germany, and in Russia, from that to the present day, have all had for their objective points cer-

tain radical changes in the character and form of the existing governments in those countries. They were in every instance designed, either like the Paris rising of September, 1870, to end a dynasty, or else, like those of a more recent time in Russia, to utterly subvert the prevailing political and social order.

AN ESSENTIAL DIFFERENCE.

The attempted American revolution of 1861 differed in this essential feature from every other revolutionary movement of which we have any knowledge. If successful, according to the design of its authors, it would have left two republics where but one existed before; two confederations of democratic commonwealths where but one had hitherto been; two constitutions, based on like principles, providing, by like methods and by similar processes, for a form and substance of representative government, in essence the same. In other lands rebellion has been often proclaimed by a handful of patriots against the authority of an autocrat; and, less frequently, by one desperate and ambitious adventurer against the authority of a constitutional government. The rebellion of the Southern States bears no analogy to either of these two classes of ordinary insurrections. It was not proclaimed by a junta of fierce spirits, acting on

the arbitrary motion of their own impulses ; it was not organized in the brain of one daring and consummate conspirator ; it was ordained by solemn votes of the peoples of the several revolting States, recorded through their chosen representatives, and ratified by all the forms that lend the sanctions of regularity to popular government. It was not an angry flame of discontent leaping into the streets and flinging its challenge in the face of the government from behind the shelter of an improvised barricade. It was not the consummation of a diabolical conspiracy born in the brain of one man, eager to

“ Wade through slaughter to a throne,
And shut the gates of mercy on mankind,”

like that which startled Paris on the night of the 2d of December, 1851, and strangled a republic in the dark while its citizens slept. It had more majesty than the first, and more honor than the last. In stately procession the States of the South moved, one after another, into the circle of armed revolt. The mob was not there, nor was the dictator. It was done in the Legislatures of sovereign States, duly elected and regularly assembled. South Carolina led the fatal way on the 17th of November, 1860; Georgia followed on the 19th; Mississippi not till the 9th of January following; and then Florida, Louisiana, Alabama,

Arkansas, Texas, North Carolina, Tennessee, and, finally, old Virginia, in the order named, filed out and took their places in that sanguinary enterprise, whose failure was secured by the splendid sacrifices we recall this day. In each case it was done by vote of the Legislature; and, in several cases, these votes were, it is well to recall, confirmed by direct appeal to the people at the polls. It was, therefore, the only rebellion in all human history which carried its credentials straight from the ballot-box.

THE BALLOT-BOX ALWAYS SUPREME.

There was the underlying fact which had in it the seed-germ of our perpetual reunion, and held, even in that hour of wrench and parting, the potential promise of our permanent and indissoluble confederation. Divided by a geographic line, we never for a moment lost identity of institutions. Separated by clashing interests, we remained one people by virtue of our common adhesion to the republican forms of government. On both sides of the Potomac we continued to talk of Presidents and Vice-Presidents, of Congress, of Senators and of Representatives, of Governors and Legislatures, of annual elections for State officers, and of quadrennial elections for national officers. In a word, there was one thing that remained with us on

both sides, rode securely on the waters of that mighty deluge, and rested safely at last on the Ararat of a re-cemented Union, — the ark of American freedom, the ballot-box!

The Federal Union was denied and defied, but the fundamental verities of republican government remained supreme over the whole land and commanded the allegiance of loyalist and rebel alike. There was the tie that bound us, and it was never broken. There was the bow of promise that spanned the black clouds of war even when they were raining upon us their fiercest furies of storm and tempest. The area of the conflict was broad and wide, but it never spread beyond the four corners of the American Magna Charta as drawn up by Jefferson and promulgated by the signers of 1776.

Gentlemen of the Grand Army and Fellow-Citizens: It is not too much to say that by that happy circumstance the Southern States, even as they went out, left the gates ajar and prepared the way, even as they departed, for their return. Abandoning the old flag, they copied the old constitution, and, in the very act of dissolving the Union, attempted to build another like unto it. Denying the jurisdiction of the nation's ballot-boxes as the court of last appeal, they nevertheless turned, as with an inbred instinct not to be suppressed, to the ballot-boxes of their several States for

the sanction of their mad defiance. The North and the South each invoked the will of the majority. The one appealed to the will of the majority of the nation, the other to the will of the majority of the State. But on both sides the call that summoned men to arms bore the indorsement of the will of the majority, national or local. The great, the cardinal maxim of freedom, that all government must rest on the consent of the governed, was pinned to the bayonets of both armies. The constitution which the fathers made was read and construed differently on either side of Mason's and Dixon's line; but the fundamental declaration on which they reared it — that the people are the source of all power, the fountain of all authority — was conceded and upheld on both. In that fact lay the real hope of the re-cementing of the Union through all those four years of checkered and wavering war. That was the sheet-anchor that held the ship of free government fast, even when she lurched and rolled most heavily in the sea of secession, and creaked and groaned in every timber with the agony of that mighty conflict.

WHY THE SOUTH FAILED.

But the men of the South failed to see that a government which tolerated human slavery could not be successfully rested upon the ballot-box, nor safely shel-

tered under the ægis of representative institutions. From the moment they embarked on that impossible enterprise they were at war, not only with us, but with themselves. Logic knows no middle path between liberty and despotism. A republic, proclaiming on its front that all men are created free and equal, but holding in chains four millions of bondsmen, was an anomaly. Our brethren of the South were unable to see it so. Nay, they went further, and believed they could build a confederation of free commonwealths, whose basic principle could be maintained side by side with a denial of human equality and the perpetuation of chattel slavery. We have been in the habit of marvelling at their fatuity. Let us rather marvel at their faith. Was there ever blinder or more unreasoning faith in the strength, the adaptability, and the capacity of the republican form of government, of democratic principles, of representative institutions? Here were ten millions of enlightened and chivalrous men, cherishing as dearly as we did the memories of the American Revolution, holding among them the sacred dust of Washington, of Jefferson, of Madison, of Monroe, of Patrick Henry, of Randolph, of Harry Lee, of Pinckney, of the Carrolls of Carrollton, of the Rutledges, of Laurens, and the rest of that immortal band, venerating the great principle which they labored in the field and in the forum to make dominant on this continent,—that

all government derives its just authority from the consent of the governed, — rising in arms to essay the vast impossibility of a republic pledged to the protection of the slave mart, a free government holding in servitude a nation of bondmen. Strange spectacle of infatuation, but, at the same time, majestic testimony to a deep-rooted and abiding faith in republican government! Of course they failed. We say they fought against force of numbers and odds of resources. True; but they fought against more than these. They fought against the foreordained and predestined procession of history. They took issue with God's handwriting on the wall, and challenged the very destiny of their race. Slavery "had been denounced in infinitude"; its hour had fully struck. At the head of the Grand Army of the Republic moved that pillar of cloud by day and that column of fire by night whose presence in all the ages has given assurance to the conscience of mankind that the invisible host drawn up "within the veil" encompasses those who struggle for the right with inexhaustible battalions of reserves. Yet we may pause and admire the splendid evidence their conduct, fatuous and forefated as it was, affords of their unalterable attachment to the republican forms of government which they inherited, in common with us, from the fathers; an attachment so deep and so intense as to prompt them to attempt the impossible,—to retain

republican government and chattel slavery intact at the same time; to endeavor, as it were, to square the political circle, and demonstrate to the world that logic has no place in the philosophy of human government.

THE BASIS OF RECONCILIATION.

European commentators upon our affairs have recorded their amazement that a civil strife, which arrayed such vast armies of men against each other for four years, numbered its combatants by the million and its slain by myriads, which placed one section under the heaviest debt that ever was incurred by a government and bankrupted the other, should have been concluded with so much magnanimity on the part of the conquerors, and been followed within so short a space of time by such general acquiescence on the part of the conquered. Nor has the wonder been confined to foreign observers. It has been a marvel to many of our own leading minds that the memories of a struggle so fierce and prolonged should, while the majority of its participants were yet surviving, have lost their bitterness, and have become the powerful inspirations of a common love of country. History here again affords us no parallel. Civil wars in other times and lands have not thus speedily lost their baleful influence. The wars of the Roses gave rise to rancors that sur-

vived to curse the two great northern shires of England for a full century at least after the last king of the rival houses of York and Lancaster had passed from the throne to the tomb. The war of Roundhead and Cavalier was a potent memory for mischief for certainly fifty years after its last battle was fought, and years after Monk trooped into London, with Charles II. holding on behind, the hatreds engendered at Naseby and Worcester were strong enough to pull Cromwell's mouldering body out of its grave to decorate a gibbet. James II. fled his kingdom in 1690; but half a century later the embers of the civil war that drove him from his throne blazed up again on Culloden's fatal field, and for many years after that the spectre of "Prince Charley from over the water" continued to haunt the Hanoverian dynasty. Nay, more than that, the battle of the Boyne has been constantly resumed at intervals in the sister island ever since, and may be said to be still going on. The experience of the French nation in its civil wars is not less strongly in contrast to our own. The white lilies of the Bourbons are still the emblems of a faction that lives as the residuary legatee of a revolution almost one hundred years old; the Orleanist princes are still the rallying points of yet another faction that holds the reversionary interest of a later domestic insurrection; while the Napoleonic legend survives St. Helena, Sedan, and Zululand, to

distract and divide our sister republic to this day. Yet there was not one of these civil commotions at all comparable, either in magnitude, in the earnestness with which it was waged, in duration of time, in weight of issues at stake, in the numbers engaged and killed, or in the heaviness of the cost incurred and loss sustained on both sides, with the war which commenced at Sumter, culminated at Gettysburg, and closed at Appomattox Court House.

Notwithstanding this disparity, from whatever side comparison is attempted the American Civil War is no longer a disturbing force in our national life. It throws no shadow of unquiet memories across our domestic peace, nor menaces our political progress with a revival of its former fires. The issues it settled were settled forever; the passions it evoked are spent, never to be rekindled. The questions it closed no man dreams of reopening; the grand political results it secured are beyond the reach of change. The Union as it was; the constitution as it is; "an indissoluble union of indestructible States"; one flag, one country, with equal liberty and equal laws for all,—these are eternally safe; they shine, steadfast and serene, fixed stars in the heavens of American freedom; they stand pillars in the temple of liberty, grand and immovable as the everlasting hills; they will endure,

we may hope, unchanging and unchangeable "to the last syllable of recorded time."

REUNION NATURAL AND INEVITABLE.

Why are we able thus to boast and thus to hope to-day? How comes it that the recollections, so far as they were malignant, of that grandly awful struggle, have vanished, and "left not a rack behind"? Thankful that it is indeed so; happy in the good fortune which devotes this day to the awakening of sentiments common to the whole reunited country; grateful that the graves we robe with flowers to-day were not made in vain, but restored to us a Union in spirit and in truth as well as in name,—we may not care perhaps to analyze too closely the philosophic reasons which have led to this blessed consummation. I believe, however, and the Macaulay of our Civil War yet to come will not, I think, be slow to discover the fact, that the identity of institutions to which both parties in the struggle clung, their common allegiance, never shaken, to the same fundamental principles, and their common preference, never changed, for the same organic structure of government, to which I have already directed attention, furnished a natural bridge across the chasm made by the war; so

that the constitutional cancer of secession, once excised by the sword, the basis of a real reconciliation and a genuine reunion was provided, ready to our feet, and a rejoining of hearts as well as hands, of sentiment as well as States, was not only natural, but inevitable. That is why, when you gentlemen of the Grand Army of the Republic stacked your arms and went back to the vocations of civil life, you had not merely vindicated the constitution, saved the Union, and rescued liberty ; you had established a peace, which had in it the bright promise, so rarely vouchsafed to conquerors by arms, of fraternal reconciliation. Revenge is the shadow of victorious war. Retaliation, like a phantom, haunts the battle-field, and whispers in the ear of the conqueror the prophecy of other battle-fields where he may not conquer. The balance of brute force wavers, and the word "to-morrow" is ever on the lips of vanquished men. It was the crowning mercy of our Civil War that it left no legacy of revenge behind. The South dreams neither of retaliation nor reversal. Appomattox Court House did not register an adjournment, but a finality.

A PICTURE FROM HUGO.

The vivid imagination of the French poet-historian says of the field of Waterloo that "at night a sort of

visionary mist rises from it, and if any traveller walk about it and listen and dream, like Virgil on the mournful plain of Philippi, the hallucination of the catastrophe seizes upon him. The frightful June 18 lives again; the false monumental hill is levelled; the wondrous lion is dissipated; the battle-field resumes its reality; lines of infantry undulate on the plain; furious galloping crosses the horizon; the startled dreamer sees the flash of sabres, the sparkle of bayonets, the red light of shells, the monstrous collision of thunderbolts; he hears, like a death-groan from the tomb, the vague clamor of the phantom battle. These shadows are grenadiers; these flashes are cuirassiers; this skeleton is Napoleon; this skeleton is Wellington; all this is non-existent, and yet still combats, and the ravines are stained purple, and the trees rustle, and there is fury even in the clouds and in the darkness, while all the stern heights, Mont St. Jean, Hougomont, Frieschemont, Papelotte, and Plancenoit, seem confusedly crowned by hosts of spectres exterminating one another."

There is more than poetry in that picturesque passage from "Les Miserables"; it is a poem and portrait both. The battle-fields of the world have, indeed, had their spectres; not fancied phantoms, called up by the poet's weird imagination, but veritable spirits of evil, wandering over them, and muttering

those dark incantations by which the wrongs and woes of the dead past are invested with potency in the living present, and the scales of slaughter kept forever tipping in the endless effort to redress wrong with wrong, and make the balance of butchery hang even.

NO HISTORIC REVENGES.

The fields of Gettysburg, of Shiloh, of the Wilderness, of Vicksburg, have no such spectral visitants. The dream of an historic revenge neither disturbs the slumbers of their dead, nor troubles the tranquillity of the living. The adversaries who met there in mortal combat finished the argument of arms and waived all appeal. The North and the South have long since looked into each other's eyes and said, "We differed, we divided, we met face to face, we fought foot to foot, and we ended a conflict that was irrepressible with a verdict that was irrevocable." Here and there a wail over the "lost cause"; now and then a passionate outburst of individual regret; at intervals a fitful gust of factious recklessness, fanning into evanescent life the smouldering embers of an extinct feud; but, above all this, over all this, the steady tramp of fifty millions of reunited freemen, cherishing no revenges, seeking no reversals, desiring no resuscitations of closed controversies, but marching on with fraternal fidelity to the music of the

Union, to fulfil the as yet unmeasured and unimagined destiny that awaits their common country — “that dear common parent of us all.” We do well, indeed, to keep green the graves of the men who made this possible. Originating, I believe, in the South, where the flowers of spring blossom with an earlier profusion than under our bleaker skies, this commemorative custom has become universal throughout the Union, and, with each returning year, has been marked by a broader spirit and a more catholic significance. This day, it is now fully recognized, belongs to the nation; the selfishness of faction is silent in its presence; the genius of a common and comprehensive patriotism presides over its observance, and thrills the broad continent from Niagara to the Golden Gate with the throbbings of a grateful and exultant nationality.

THE COMMEMORATION OF THE COMMON SOLDIER.

The praises of patriotism have been said and sung by the sages and the bards of every clime and time. There is not a land where the memorial shaft of brass or marble does not tower skyward to remind the successive generations, as they pass, of the heroes who fought and died for their country in some foreign field. France looks up to her column of July, surmounted by the figure of Napoleon; Germany to the colossal

statue of Frederick the Great; Russia to her images of Peter; Britain to the stern face of her iron duke and to the bronze counterfeits of Nelson. In every case it is a man who stands at the top of the column, a colossus of conquest raised to the clouds from pedestals at whose base lie myriads of common soldiers, who fell "unwept, unhonored, and unsung." It has been appropriately reserved for the great republic to initiate a new order of martial commemoration, and nothing in her broad domain affords a truer earnest of the freer, juster, and more equal civilization of which she was the cradle, and is still the chief custodian, than the simpler monuments which dot her commons and public squares, surmounted with the figures of the common soldier and sailor, and inscribed simply, but strongly: "In memory of the soldiers and sailors of this town, who fell in the war for the Union." The Old World builds its monuments to individual greatness; the New World holds in supremest gratitude the common sacrifices of the "plain people." We are not without military glory; but it is not the glory of one man, rising far above his fellows and towering like a demi-god among men; it is the glory of the masses of mankind. When France thinks of Marengo and Austerlitz, it is Napoleon, Ney, and Soult whom she deifies. When Britain boasts of Trafalgar, it is only the form of Nelson that she sees through the smoke of the

Victory's guns; if she reverts to Blenheim, it is Marlborough; or if to Waterloo, then it is Wellington. The common soldier is forgotten; it is only the one heroic man who is remembered. The American republic has her individual heroes, the lustre of whose achievements will not pale by comparison with any of the great captains of other lands and times. She has her Grant and her Sherman, her McClellan and her Meade, her Thomas and her Sheridan, her Hooker and her Hancock, her Farragut and her Winslow, and a score of other deathless names of men whose courage and skill as commanders are part of her imperishable renown. These have their fitting homage and their just reward. But let us thank God this day that their deeds, brave and brilliant as they were, dazzled, but never dazed, the republican sentiment of the people.

When they came to erect statues and monuments, and to decree a day of remembrance for the perpetual consecration of that great conflict, they inscribed and devoted them all to the memories of the common soldier and sailor, — the men who went out from the farm, the factory, the workshop, and the counter, and made the glory of Grant and the fame of Farragut alike possible. It is the achievements of the sacrifices of the great American commonalty, the devotion of the first democratic nation of the earth to democratic govern-

ment, the fidelity unto death of the foremost republican people of modern times to republican institutions, that we recall with thankful hearts at this hour. The graves we have just visited were not filled by men who marched unthinking, or fell unjustified of their reason. They sprang to arms, not at the summons of a ruler whom they feared, but at the call of a country which they loved, because it was theirs. "Patriotism," says Robert Hall, "is a blind and irrational impulse, unless it is founded on a knowledge of the blessings we are called to secure and the privileges we propose to defend." The men of the Grand Army of the Republic had that knowledge. The Hessian, fighting for hire, was but as an infinitesimal drop in the ocean of valor that rolled across the Potomac, surged through the valley of the Shenandoah, laved the banks of the Cumberland and the James with its resistless waves, and upbore the Union Ship upon its mighty billows. The rank and file of the Grand Army of the Republic fulfilled Hall's definition of patriotism, and incarnated the epigram, "bayonets think."

"TO KEEP FAITH WITH FANEUIL HALL."

Two centuries of town meetings culminated in their graves. The bells of the meeting-house and the school-house of New England rang the alarum

that placed them in battle array. Bunker Hill echoed the call, and Concord bridge vibrated in sympathy. The Old South pulpit, where the thunders of Otis and Sam Adams still lingered, breathed its benediction upon them, as they filed past by day; and at night the Old North tower gleamed, to the spiritual eye, with the rekindled flash of Paul Revere's lantern. They marched to keep faith with Faneuil Hall. They died to rescue that larger cradle of liberty where the hopes of the whole human race are laid, — the undivided and indivisible republic of America. They knew why they fought; their rifles were sighted by that imperial intelligence, whose godlike form looks down upon you from yonder historic canvas. Many of them had heard him; most of them had read him; all of them understood the sublime logic of his plea for the constitution and the Union. The reasoning of his reply to Calhoun — a more superb plea for the American nationality, it has always seemed to me, than his more quoted reply to Hayne — inspired them with the enthusiasm of intelligence and the ardor of conviction. They knew, we all knew, that the hour had struck which Webster prophetically foresaw when he said: "If the friends of nullification should be able to propagate their opinions and give them practical effect, they would, in my judgment, prove themselves the most skilful architects of ruin, the most effectual extinguish-

ers of high-raised expectation, the greatest blasters of human hopes, that any age has produced. They would stand up to proclaim, in tones which would pierce the ears of half the human race, that the last great experiment of representative government had failed. They would send forth sounds at the hearing of which the doctrine of the divine right of kings would feel, even in its grave, a returning sensation of vitality and resuscitation. Millions of eyes of those who now feed their inherent love of liberty on the success of the American example would turn away from beholding our dismemberment and find no place on earth whereon to rest their gratified sight. Amid the incantations and orgies of nullification, secession, disunion, and revolution, would be celebrated the funeral rites of constitutional and republican liberty." Such was Webster's estimate of the ultimate consequences of successful secession.

THE NEW THERMOPYLÆ.

Between us and our posterity, between the human race and that infinite catastrophe, the graves we deck to-day interpose their vicarious sacrifice. The gulf that Webster saw yawned at their feet, and they closed it with their bodies. The sacrifices of Leonidas and his three hundred Spartans in the pass of Thermopylæ, in

order that the heel of the Persian might not press the neck of their country, have been immortalized in story and in song. But these, our precious dead, stood in the shadow of a grander Thermopyæ, and held the pass of a supreamer occasion. Had they failed to keep that pass, then, in the words I have just quoted, "the last great experiment of representative government had failed." Webster's instinct of prescience had accurately defined the stake for which they contended, a full quarter of a century in advance. It was not only nor mainly slavery that was at hazard; it was not the rights of the States; it was neither a question of private property nor of sectional ascendancy. These things were involved, and, incidentally, in the good providence of God, they were decided. The South said she fought for local self-government and the absolute sovereignty of the State; the North said, or some of her spokesmen said for her, that she fought for the emancipation of the slaves and the reassertion of the federal integrity. My friends, these definitions dwarfed the issue. More than the integrity of a government, far more than the extinguishment of slavery, was decided in the strife in which the comrades you recall to-day met and conquered death. Europe knew better; Napoleon III. knew better; Lord John Russell and Mr. Gladstone knew better. Verifying Webster's prophetic words, the doctrine of the divine right of kings did feel, "even

in its grave, a returning sensation of vitality and resuscitation." The ghost of George III. marched with Lee into Pennsylvania, and Meade was really fighting Yorktown over again at Gettysburg. Monarchy looked across the Atlantic with envious eyes. It felt, instinctively and exultingly, that the work of Washington and Jefferson was in imminent peril of being undone. The successors of Lord North hungered for an historic revenge. Lee triumphant at Gettysburg would have counterbalanced the surrender of Cornwallis. There was one democratic statesman on that side who interpreted the situation as Webster had foreseen it.

JOHN BRIGHT'S HOPE.

I love to read the ringing words of John Bright to his countrymen in 1861, evidence, as they are, that the pulse of freedom's friends beats in unison the wide world over. "It has been said," exclaimed Bright, "that it would be much better that the United States should be severed, and that the great American continent should be, as the continent of Europe is, in many states, subject to all the contentions and disasters which have accompanied the history of the states of Europe. I should say that, if a man had a great heart within him, he would rather look forward to the day when, from that point of land which is habitable near-

est to the pole, to the shores of the great gulf, the whole of that vast continent might become one great confederation of states, without a great army and without a great navy, not mixing itself up with the entanglement of European politics, without a custom-house inside throughout the whole length and breadth of its territory, with freedom everywhere, equality everywhere, law everywhere, peace everywhere." "Such a confederation," said England's later Hampden, "would afford, at least, hope that man is not forsaken of Heaven, and that the future of our race can be better than the past."

THE UNION SOLDIER—HIS WORK AND HIS REWARD.

It was to place such a confederation within the probabilities, I might almost say within the certainties, of the measurably near future that the flower of New England manhood went down into the valley of the shadow of death and bequeathed these green mounds to our loving care. They saved the past and they secured the future. They reaffirmed the judgment of Yorktown, and destroyed the last hope of kings on this continent. They redeemed the republic, and washed from her robe the stain of slavery. They made the final award between Webster and Calhoun, and affirmed that this is, and forever must remain, "an indissoluble union of indestructible States."

They secured this continent to Republican government, and rewrote Canning's epigram: "I called a New World into existence to redress the balance of the Old." They preserved the integrity of a nation of thirty millions of people—already a nation of nearly double that number pays them the annual homage of its gratitude—and, when we have grown, as statisticians tell us we shall grow, to a nation of one hundred and fifty millions of people, their resting-places shall still be the Meccas of patriotic pilgrims, and the pledges of our perpetuation under one flag and one government, the dominant and dominating democracy of the earth. The flowers of a hundred springs were all too few to cast upon their graves. They died that the nation might live, and these poor offerings which we bring, once a year, to scatter on their dust—what are they? Mere tokens and symbols of a boundless reverence, meagre dividends on a debt of gratitude that may never be paid in full. Yet 'tis all that we can give. On those clear heights, where now their happy spirits walk, what are the beauty and the fragrance of earth's fading flowers? The deathless blossoms of God's eternal garden are theirs,

"Where everlasting spring abides
And never-withering flowers."

It is for us, not for them, that we strew the first-fruits of our gardens above their clay. They need them not.

They have entered into their rest, and nothing we may do or leave undone can touch them more. But for us there is inspiration and impulse in this day. In the presence of their bright memories, and spurred by their exalted examples, we may, perhaps, be lifted for one day in the year's dull round of days on to a mount of transfiguration, where, communing with their spirits, we may discern, though but for a moment, the sublime grandeur of the republic for which they died — the vastness of its destiny, the height of the hopes that humanity centres upon its success, and the depth of the despair that would yawn like a precipice upon its failure. It is in this spirit, fellow-citizens, that

“ I with uncovered head
 Salute the sacred dead
 Who went, and who return not. — Say not so !
 'Tis not the grapes of Canaan that repay,
 But the high faith that failed not by the way ;
 Virtue treads paths that end not in the grave ;
 No bar of endless night exiles the brave ;
 And to the saner mind
 We rather seem the dead that stayed behind.
 Blow, trumpets, all your exultations blow !
 For never shall their aureoled presence lack :
 I see them muster in a gleaming row,
 With ever-youthful brows that nobler show ;
 We find in our dull road their shining track ;
 In every nobler mood
 We feel the orient of their spirit glow,
 Part of our life's unalterable good,
 Of all our saintlier aspiration ;
 They come transfigured back,
 Secure from change in their high-hearted ways,
 Beautiful evermore, and with the rays
 Of morn on their white Shields of Expectation ! ”

CITY OF



BOSTON.

ORDINANCES OF 1883. — CHAPTER 13.

CONCERNING SALARIES OF ASSISTANT
CITY MESSENGERS.

In the Year One Thousand Eight Hundred and Eighty-three.

AN ORDINANCE TO AMEND CHAPTER SIX OF
THE REVISED ORDINANCES.

Be it ordained by the City Council of Boston, as follows: —

SECTION 1. Chapter 6 of the Revised Ordinances is hereby amended in Section 1, in the clause providing for the salary of the second assistant messenger, by striking out the word "eight," and inserting in place thereof the word "nine"; and in the clause providing for the salary of the third assistant messenger, by striking out the word "six," and inserting in place thereof the word "eight."

IN COMMON COUNCIL, Sept. 20, 1883.

Passed. Sent up for concurrence.

GODFREY MORSE,
President.

IN BOARD OF ALDERMEN, Sept. 24, 1883.

Concurred.

HUGH O'BRIEN,
Chairman.

Approved, Sept. 25, 1883.

ALBERT PALMER,
Mayor.

A true copy. Attest:

FREDERICK E. GOODRICH,
City Clerk.

CITY OF



BOSTON.

AUDITOR'S MONTHLY EXHIBIT.

GENERAL AND SPECIAL APPROPRIATIONS

FOR 1883-84.

OFFICE OF THE CITY AUDITOR, }
CITY HALL, October 2, 1883. }

TO THE HONORABLE CITY COUNCIL:—

GENTLEMEN, — The undersigned, in compliance with Chap. 14, Section 3, Revised Ordinances, herewith presents an exhibit of the General and Special Appropriations for the present financial year of 1883-84, as shown in the books in his office, October 1, 1883, including the October draft, — being six months' payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1882-83, the amount drawn October 1, the total expenditures, and the balance of each appropriation unexpended at that date.

Respectfully submitted,

JAMES H. DODGE,
City Auditor.

APPROPRIATIONS.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Oct. Draft, including Treasurer's payments in September.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including October Draft.
Advertising	..	..	\$1,200 00	\$1,200 00	\$85 58	\$1,122 01	\$77 99	
Architect's Department	..	..	13,000 00	13,000 00	1,084 18	7,675 07	5,324 93	
Armories	..	..	24,000 00	24,000 00	5,323 11	13,360 27	10,639 73	
Assessors' Department	..	..	105,000 00	105,000 00	6,513 81	69,741 75	35,258 25	
Auditor's Department	..	..	17,500 00	17,500 00	1,382 61	8,176 26	9,323 74	
Board of Health, etc., viz.:								
Board of Health	..	..	62,000 00	62,000 00	5,791 38	29,995 55	32,004 45	
Evergreen Cemetery	..	\$159 25	1,500 00	1,698 77	163 75	1,350 37	348 40	
Public Baths	..	..	15,000 00	15,000 00	2,021 51	9,614 15	5,385 85	
Quarantine Department	..	..	16,400 00	16,400 00	929 42	13,838 76	2,561 24	
Store-house, Gallop's Island ¹	..	..	10,000 00	10,000 00	1,000 00	1,000 00	9,000 00	
Boston Harbor	..	..	4,500 00	4,500 00	150 00	954 16	3,545 84	
Bridges:—								
Bridges	..	..	67,000 00	67,000 00	6,989 50	35,727 69	31,272 31	
New Bridge to Cambridge	1,000 00	..	..	1,000 00	..	..	1,000 00	\$44,344 41
Warren Bridge	99,710 55	..	..	99,710 55	38,563 51	44,054 96	55,655 59	6,363,828 12
Burnt District	82,348 53	..	..	82,348 53	..	..	82,348 53	
Cedar Grove Cemetery	..	5,371 42	5,000 00	10,875 94	1,100 92	7,731 62	3,144 32	
Chestnut Hill Driveway	504 52	..	3,000 00	3,000 00	215 75	1,560 99	1,439 01	
City Debt	..	..	768,278 00	768,278 00	..	..	768,278 00	
City Loans, Redemption of, Received from Commis- sioners	..	497,000 00	..	497,000 00	..	497,000 00	..	
Revenue \$187,000 00	..	..	..	..	..	..	..	
Sinking Funds \$310,000 00	..	..	..	..	..	..	..	
Redemption of City Debt Proper	..	..	..	..	66,000 00	..	..	
Redemption of Mystic Water Debt	..	..	..	..	202,000 00	..	..	
Cost of Redemption of ma- tured bonds	..	..	..	..	..	..	..	
City Hospital	..	..	154,500 00	154,500 00	10,991 10	73,840 64	80,659 36	
Carried forward	\$183,603 12	\$502,530 67	\$1,267,878 00	\$1,954,011 79	\$350,306 13	\$816,744 25	\$1,137,267 54	\$6,408,172 53

¹ Transferred from Reserved Fund, \$10,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Oct. Draft, including Treasurer's payments in September.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including October Draft.
<i>Brought forward</i>	\$183,603 12	\$502,530 67	\$1,267,878 00	\$1,954,011 79	\$350,306 13	\$816,744 25	\$1,137,267 54	\$6,408,172 53
City Registrar's Department			10,900 00	10,900 00	662 30	4,106 75	6,793 25	
Collector's Department			52,900 00	52,900 00	4,291 79	24,443 96	28,456 04	
Common and Public Grounds:								
Common, etc.			63,550 00	63,550 00	4,510 45	48,449 92	15,100 08	
Current expenses								
Concrete walks								
Plank walks								
Flagstaffs, Common, Public Gar- den, and Washington Park . \$352 75								
Play Grounds								
Curb-stones, Copley Square ¹			5,000 00	5,000 00			5,000 00	
Improvement of Copley Square			5,000 00	5,000 00	257 65	5,000 00		
Public Garden Pond	9,541 35			9,541 35		2,128 75	7,412 60	
Contingent Funds, viz.:								
Joint Committees			15,000 00	15,000 00	1,927 78	11,340 35	3,659 65	
Mayor			1,500 00	1,500 00	30 25	351 85	1,148 15	
Board of Aldermen			6,600 00	6,600 00	502 21	3,191 36	3,408 64	
Common Council			5,000 00	5,000 00	23 00	2,564 37	2,435 63	
County of Suffolk			360,000 00	360,000 00	33,763 08	175,329 54	184,670 46	
Damages by dogs						28 50	(\$28.50 provided for.)	
Deeds, Real Estate Advertising, etc.	5,485 33	6,584 27		12,069 60	737 77	6,435 93	5,633 67	
East Boston Ferries:								
East Boston Ferries			210,540 00	210,540 00	24,702 59	125,275 92	85,264 08	
Head-house, North Ferry, Boston side	4,548 88			4,548 88		4,528 19	20 69	23,479 31
New Ferry Boat			50,000 00	50,000 00	10,195 00	10,867 22	39,132 78	
Engineer's Department			32,000 00	32,000 00	2,415 90	14,642 29	17,357 71	
Fire Department:								
Fire Department			601,043 00	601,043 00	43,721 71	350,406 96	250,636 04	
Fire-Alarm Telegraph			30,052 00	30,052 00	2,099 05	13,079 67	16,972 33	
Health Department			380,000 00	380,000 00	32,164 08	177,141 14	202,858 86	
<i>Carried forward</i>	\$203,178 68	\$509,114 94	\$3,096,963 00	\$3,809,256 62	\$512,310 74	\$1,796,056 92	\$2,013,228 20	\$6,431,651 84

¹ Transferred from Reserved Fund, \$5,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Oct. Draft, including Treasurer's payments in September.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncon- pleted public buildings and works, May 1, 1883, including October Draft.
<i>Brought forward</i>	\$203,178 68	\$509,114 94	\$3,096,963 00	\$3,809,256 62	\$512,310 74	\$1,796,056 92	\$2,013,238 20	\$6,431,651 84
Improved Sewerage ¹	191,013 41	500,000 00		691,013 41	85,573 93	549,410 95	141,602 46	4,105,397 54
Incidental Expenses		397 41		60,397 41	3,495 39	42,412 95	17,984 46	
Inspection of Buildings			60,000 00	33,500 00	3,035 10	17,331 90	16,168 10	
Interest			33,500 00	1,562,968 00	122,829 32	481,269 99	1,081,998 01	
Lamp Department			1,562,968 00	500,000 00	40,104 58	206,164 59	293,835 41	
Law Department			500,000 00	23,000 00	1,856 00	11,214 93	11,785 07	
Liquor License Expenses:			23,000 00					
Police Commissioners					2,507 55			
City Clerk's Department								
Collector's Department		293,266 00		293,266 00	27 50	85,445 24	207,820 76	
Treasurer's Department								
Paid State, proportion of receipts, 71,513 25 } Markets					1,669 00	4,753 55	6,466 45	
Mount Hope Cemetery			11,220 00	11,220 00	774 36	22,991 48	4,767 43	
Northampton-street District	4,559 54	8,456 37	14,743 00	27,758 91	4,973 29	19,621 75	19,621 75	558,378 25
Old Claims	19,621 75			19,621 75			1,067 84	
Overseers of the Poor			2,000 00	2,000 00		932 16	82,320 72	
Park Department:			113,750 00	113,750 00	5,022 52	31,429 28		
Park Department	1,514 74		5,000 00	6,514 74	335 38	1,872 57	4,642 17	
Office Expenses								
Muddy River Survey, etc.								29,401 85
Arnold Arboretum:								
Land	30,598 15			30,598 15	1,702 03	4,160 13	30,598 15	
Driveways, etc.			15,000 00	15,000 00			10,839 87	
Charles River Embankment:								
Land	38,000 00	200,000 00		238,000 00	4,500 00	62,487 00	175,513 00	124,487 00
Borings, etc. ²			1,000 00	1,000 00	44 75	271 90	728 10	
City Point Park:								
Land	39,364 70	100,000 00		139,364 70		25,023 29	114,341 41	105,658 59
Filling, etc. ³			3,000 00	3,000 00		1,231 17	1,768 83	
Covered Channel, Muddy River	24,287 88		50,000 00	74,287 88	2,655 31	24,778 14	49,509 74	80,490 26
<i>Carried forward</i>	\$552,138 85	\$1,611,234 72	\$5,492,144 00	\$7,655,517 57	\$793,416 75	\$3,369,238 14	\$4,286,307 93	\$11,435,465 33

¹ Total Appropriations, \$5,253,000; transferred August, 1876, by authority of an order of July 17, from Reserved Fund, \$40,000, and loans authorized, \$5,213,000; loans negotiated, \$4,207,000.

² Transferred from Reserved Fund, \$1,000.

³ Transferred from Reserved Fund, \$3,000.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Oct. Draft, including Treasurer's payments in September.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including October Draft.
<i>Brought forward</i>	\$552,138 85	\$1,611,234 72	\$5,492,144 00	\$7,655,517 57	\$793,416 75	\$3,369,238 14	\$4,286,307 93	\$11,435,465 33
Covered Channel, Stony Brook	3,192 50			3,192 50		2,014 66	1,177 84	125,199 51
East Boston Park, care, etc.			5,000 00	5,000 00		49 33	4,950 67	32,947 40
Muddy River Improvement	4,864 67	100,000 00		104,864 67	3,700 00	12,812 07	92,052 60	
Park Nursery, Austin Farm	367 22		1,000 00	1,367 22		93 41	1,273 81	
Public Park, Back Bay:								
Land	21,925 21			21,925 21			21,925 21	444,074 79
Filling, etc.	121,765 48		100,000 00	221,765 48	17,936 41	98,192 48	123,573 00	764,127 00
West Roxbury Park	64,066 97	300,000 00		364,066 97	89,500 00	110,316 97	253,750 00	346,250 00
Land			5,000 00	5,000 00	1,607 47	3,695 41	1,304 59	
Care, etc.			800,000 00	800,000 00	113,848 89	540,326 56	259,673 44	
Paving Department				4,358 16			4,358 16	
Phillips Street Fund, Income	4,358 16			970,324 00	76,901 88	461,545 32	508,778 68	
Police Department	7,250 00		37,500 00	44,750 00	1,928 24	16,725 90	28,024 10	
Printing and Stationery (general)								
Public Buildings:								
Public Buildings	23,340 99	6,753 26	136,650 00	166,744 25	12,998 50	92,096 56	74,647 69	
Engine-house, Bunker Hill Street			25,000 00	25,000 00	2,108 00	2,299 40	22,700 60	
Health Department Stables	2,613 97			2,613 97	63 93	2,575 50	38 47	
Library Lot, Dartmouth st. and St. James av., ¹		100,000 00		100,000 00		57,175 00	42,825 00	
Public Institutions, viz.:								
House of Industry			176,200 00	176,200 00	19,301 93	87,372 24	88,827 76	
House of Correction			90,400 00	90,400 00	5,156 86	57,170 38	33,229 62	
Lunatic Hospital			60,000 00	60,000 00	5,249 68	33,079 56	26,920 44	
Marcella-street Home			45,000 00	45,000 00	4,008 19	20,685 41	24,314 59	
Almshouse, Austin Farm			27,000 00	27,000 00	1,560 98	10,829 51	16,170 49	
Almshouse, Charlestown District			10,950 00	10,950 00	914 54	6,703 31	4,246 69	
Pauper Expenses			159,000 00	159,000 00	1,132 19	68,254 37	90,745 63	
Steamboat "J. Putnam Bradlee"			14,000 00	14,000 00	1,217 26	11,281 47	2,718 53	
New boilers, etc., steamboat "J. Putnam Bradlee"			7,600 00	7,600 00		7,599 49	51	
Office Expenses			8,500 00	8,500 00	684 14	4,391 08	4,108 92	
Stone-cutting, Deer and Rainsford Islands .			16,000 00	16,000 00	321 40	3,720 80	12,279 20	
Marcella-street Home, fences and grounds .				1,004 92		445 00	559 92	
Furnishing Master's house, House of Correction	1,004 92							
			2,000 00	2,000 00		1,999 60	40	
<i>Carried forward</i>	\$806,888 94	\$2,117,987 98	\$8,189,268 00	\$11,114,144 92	\$1,153,557 24	\$5,082,688 93	\$6,031,484 49	\$13,148,064 03

¹ Loan authorized, \$180,000; loan negotiated, \$100,000.

APPROPRIATIONS, CONTINUED

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Oct. Draft, including Treasurer's payments in September.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including October Draft.
<i>Brought forward</i>								\$13,148,064 03
Public Lands	\$806,888 94	\$2,117,987 98	\$8,189,268 00	\$11,114,144 92	\$1,153,557 24	\$5,082,688 93	\$6,031,484 49	
Public Library			6,000 00	6,000 00	79 36	1,518 33	4,481 67	
Record Commissioners	2,093 95		120,000 00	122,093 95	8,573 13	57,622 59	64,471 36	
Record of Street Names			4,500 00	4,500 00	434 85	2,083 38	2,416 62	
Registration of Voters and Election Expenses:	1,500 00			1,500 00			1,500 00	
Registration of Voters								
Election Expenses			25,000 00	25,000 00	1,625 01	9,491 01	15,508 99	
Reserved Fund ¹			15,000 00	15,000 00	148 63	661 11	14,338 89	
Salaries			163,915 00	163,915 00			163,915 00	
Schools and School-houses, viz.:			37,500 00	37,500 00	3,130 32	18,773 55	18,726 45	
School Instructors								
Salaries Officers, School Committee			1,143,471 00	1,143,471 00	90,621 37	554,135 84	589,335 16	
School Expenses, School Committee			58,940 00	58,940 00	4,901 68	29,410 00	29,530 00	
Gibson School Fund, Income			255,650 00	255,650 00	19,928 68	156,588 36	99,061 64	
School-houses, Public Buildings	2,084 95	92 00		2,176 95	16 05	503 71	1,673 24	
Addition to Auburn-street School-house			169,000 00	169,000 00	56,468 14	132,487 30	36,512 70	
Addition to Chapman School-house			5,000 00	5,000 00	110 94	110 94	4,889 06	
Chapman School-house, furnishing	13,591 10			13,591 10	481 25	9,264 00	4,327 10	
Addition to School-house lot, Summer-street, Dorchester ²			2,000 00	2,000 00	118 10	1,614 02	385 98	
Addition to East Boston High School-house			7,500 00	7,500 00		7,279 50	220 50	
East Boston High School-house, furnishing	30,000 00		5,000 00	35,000 00	135 00	335 34	34,664 66	
Enlargement of Lexington-street School-house lot			2,000 00	2,000 00			2,000 00	
English High and Latin School Buildings ³			2,300 00	2,300 00		2,300 00		
George Putnam School, completion of	1,547 43			1,547 43			1,547 43	
Grammar School-house, Hammond-park st.: Site			15,000 00	15,000 00	1,119 33	1,285 67	13,714 33	467,830 82
Building								
			78,000 00	78,000 00		27,001 50	50,998 50	
<i>Carried forward</i>	\$857,706 37	\$2,119,079 98	\$10,305,044 00	\$13,280,830 35	\$1,341,449 08	\$6,095,155 08	\$7,185,703 77	\$13,615,894 85

¹ Transferred to Addition to East Boston High School-house, \$5,000.
Addition to School-house lot, Summer street, Dorchester, \$7,500.
Charles River Embankment, Borings, etc., \$1,000.
City Point Park, Filling, etc., \$3,000.
Curbstones, Copley Square, \$5,000.

² Transferred from Reserved Fund, \$7,500.
³ Total appropriation, \$469,378.25; loan authorized and negotiated, \$350,000; transfer, \$16,378.25; appropriations, \$103,000.

Foot-bridge, Franklin street, Brighton, \$3,500.
Primary School-house, Main street, Charlestown, \$1,085.
Store-house, Gallop's Island, \$10,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Oct. Draft, including Treasurer's payments in September.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including October Draft.
<i>Brought forward</i>	\$857,706 37	\$2,118,079 98	\$10,305,044 00	\$13,280,830 35	\$1,341,449 08	\$6,095,155 08	\$7,185,703 77	\$13,615,894 85
Grammar School-house, Kenilworth street	34,546 47		7,500 00	42,046 47	1,621 38	27,212 25	14,834 22	90,478 28
Grammar School-house, Kenilworth street, furnishing			6,200 00	6,200 00	4,243 50	4,243 50	1,956 50	
Primary School-house, Harbor View street	12,000 00			12,000 00	92 81	215 34	11,784 66	42,457 92
Primary School-house, Howard-avenue	31,317 07			31,317 07	2,196 34	20,725 99	10,591 08	
Primary School-house, Howard avenue, furnishing			3,500 00	3,500 00	143 00	143 00	3,357 00	
Primary School-house, Main street, Charles-town:—								
Site ¹			42,085 00	42,085 00			42,085 00	
Building			10,000 00	50,000 00	3,108 00	3,304 17	46,695 83	9,304 17
Primary School-house, O street	40,000 00		30,000 00	30,000 00			30,000 00	
Primary School-house, Parker street								
Primary School-house, vicinity of Blossom street:—			100,000 00	100,000 00			100,000 00	
Site								
Building								
School-house, Breed's Island:—								
Site	7,960 70			7,960 70	1,000 00	5,540 30	2,420 40	6,579 60
Building								
Sealer of Weights and Measures			9,140 00	9,140 00	722 58	4,588 21	4,551 79	
Sewer Department			250,000 00	250,000 00	45,567 37	176,795 63	73,204 37	
Sinking-Fund Commissioners			2,000 00	2,000 00	234 00	857 89	1,142 11	
Soldiers' Relief	77,948 77			77,948 77	7,404 66	45,173 26	32,775 51	293,929 97
Stony Brook Improvement	433 41		40,000 00	40,433 41	1,159 26	39,460 94	972 47	2,427,589 25
Suffolk Street District	659 71			659 71			659 71	
Surveyor's Department			30,000 00	30,000 00	2,328 33	14,552 78	15,447 22	
Temporary Loan			97,000 00	97,000 00			97,000 00	
Treasurer's Department			29,500 00	29,500 00	2,386 69	14,367 54	15,132 46	
Water Works:—								
Cochituate Water Works		223,172 27		223,172 27		267,493 36	(\$44,321 09 provided for.)	
Running expenses					47,034 75			
Interest					49,294 38			
<i>Carried forward</i>	\$1,062,572 50	\$2,341,252 25	\$10,961,969 00	\$14,365,793 75	\$1,509,986 13	\$6,719,829 24	\$7,690,314 10	\$16,486,234 04

¹ Transferred from Reserved Fund, \$1,085.

APPROPRIATIONS, CONCLUDED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Oct. Draft, including Treasurer's payments in September.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works May 1, 1883, including October Draft.
<i>Brought forward.</i>	\$1,062,572 50	\$2,341,252 25	\$10,961,969 00	\$14,365,79 75	\$1,509,986 13	\$6,719,829 24	\$7,690,314 10	\$16,486,234 04
Additional Supply of Water ¹	219,141 48			219,141 48	58,535 49	178,393 46	40,748 02	5,696,138 78
New Main, Cochituate Water Works	9,486 78	70,000 00		79,486 78	18,147 21	38,494 76	40,992 02	309,007 98
Introduction of Meters and Inspection		50,000 00		50,000 00	2,730 10	5,741 07	44,258 93	
Mystic Water Works		88,919 10		88,919 10		74,273 35	14,645 75	
Running expenses					9,448 66			
Interest					150 00			
Proportions paid under con- tracts								
18,245 57								
Mystic Sewer	7,256 02			7,256 02	173 57	5,955 53	1,300 49	123,699 51
West Boston and other Bridges			11,500 00	11,500 00	608 22	5,451 96	6,048 04	
Widening and Extending Streets:—								
Widening Streets			100,000 00	100,000 00	993 54	36,346 43	63,653 57	
Broadway Extension	41,284 56			41,284 56	5,024 91	34,291 45	6,993 11	1,313,000 89
Columbus Avenue Extension	3,012 70			3,012 70			3,012 70	61,987 30
Commonwealth Avenue Extension	25,727 76			25,727 76		11 25	25,716 51	199,283 49
Commonwealth Avenue Extension, Brighton D Street Extension			55,000 00	55,000 00			55,000 00	
Eastern Avenue and Bridge	8,800 73		10,000 00	18,800 73			18,800 73	46,199 27
Foot-bridge, Franklin Street, Brighton ²	13,569 79			13,569 79			13,569 79	186,430 21
Harrison Avenue Extension			3,500 00	3,500 00			3,500 00	
Huntington Avenue Extension	3,604 17			3,604 17			3,604 17	126,515 83
Camden st. to Parker st. Parker st. to Tremont st. }	49,099 42		40,000 00	89,099 42	5,984 23	37,725 06	51,374 36	54,354 98
Phillips Street Extension								89,270 66
Washington Street Extension			32,300 00	32,300 00		7,432 00	24,868 00	1,645,697 00
Widening Commercial Street	24,303 00			24,303 00			24,303 00	487,703 17
Widening Kneeland Street ³	12,471 83			12,471 83		175 00	12,296 83	120,484 34
Widening Portland Street	6,515 66	1,000 00		7,515 66		7,000 00	515 66	219,781 94
Widening South Street	85,352 31			85,352 31		5,134 25	80,218 06	119,825 08
Widening South Street, East Street to Kneeland Street	20,174 92			20,174 92			20,174 92	
	21,757 69			21,757 69		55 00	21,702 69	163,297 31
	\$1,614,131 32	\$2,551,171 35	\$11,214,269 00	\$15,379,571 67	\$1,617,562 06	\$7,156,309 81	\$8,267,611 45	\$27,453,911 78
						Less prov. for,	44,349 59	
							\$8,223,261 86	

¹ Total appropriations, \$6,357,886.80; loans negotiated, premium on said loans, and transfer from Reserved Fund, \$5,736,886.80.
² Transferred from Reserved Fund, \$3,500.
³ Loan authorized, \$180,000; loan negotiated, \$121,000.

CITY OF



BOSTON.

MONTHLY STATEMENT

OF THE

TREASURY DEPARTMENT.

TREASURER'S OFFICE,

BOSTON, Oct. 2, 1883.

TO THE HONORABLE CITY COUNCIL:—

GENTLEMEN, — The undersigned herewith presents a statement of the receipts and payments of the Treasury Department of the City of Boston for the month of September, 1883, showing the balance of money remaining in the Treasury at the close of the month of September, 1883, and where deposited.

Respectfully submitted,

ALFRED T. TURNER, *City Treasurer.*

Monthly Statement of the Treasury Department.

Balance, August 31, 1883 \$1,970,138 18

RECEIPTS IN SEPTEMBER, 1883.

From City Collector, on City Account	\$281,963 80	
From City Collector, on County Account	1,381 01	
		\$283,344 81
Temporary Loan, 1883-4		830,000 00
From Sinking-Fund Commissioners, —		
For payment of Debt	\$268,000 00	
Refunded betterments and costs	10	
		268,000 10
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid		4,713 49
Interest on Bank Deposits		4,180 67
		<u>\$3,360,377 25</u>

PAYMENTS IN SEPTEMBER, 1883.

On Mayor's general draft	\$586,573 97
“ “ special drafts	794,869 03
	<u>\$1,381,443 00</u>
Sinking-Fund Commissioners, Revenue, payable under authority of Ordinance on Finance	30,572 94
County of Suffolk, allowed by Auditor of the County of Suffolk	28,043 78
City 5% Loan	4,000 00
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters	3,336 76
Liquor Licenses paid State of Massachusetts, ...	1,669 00
Refunded Taxes, expenses, costs, etc. . . .	1,136 89
	<u>\$1,450,202 37</u>

RECAPITULATION.

Balance, August 31, 1883	\$1,970,138 18
Receipts during September, 1883	1,390,239 07
	<u>\$3,360,377 25</u>
Payments during September, 1883	1,450,202 37
Balance, September 30, 1883	<u>\$1,910,174 88</u>

STATEMENT

For the Financial Year 1883-84, from May 1, 1883, to Sept. 30, 1883, inclusive:—

Balance on hand May 1, 1883 . . . \$2,564,013 55

RECEIPTS.

From City Collector, on City
Account . . . \$1,940,856 18
From City Collector, on
County Account . . . 25,733 25

1,966,589 43

City 4% Loans,—
Charles River Embankment, \$200,000 00
City Point Park . . . 100,000 00
Improved Sewerage . . . 500,000 00
Library Lot, Dartmouth St.
and St. James Ave. . . 100,000 00
Muddy River Improvement, 100,000 00
West Roxbury Park . . . 300,000 00
Widening Kneeland Street, 1,000 00

1,301,000 00

Cochituate Water 4% Loans,—
New Main, Cochituate Water
Works . . . \$70,000 00
Introduction of Meters and
Inspection . . . 50,000 00

120,000 00

Temporary Loan, 1883-4 . . . 1,930,000 00

From Sinking-Fund Commissioners,—
For payment of Debt . . . \$497,000 00
Refunded betterments and
costs . . . 178 68

497,178 68

Premium on City Loans . . . 61,740 00
Interest on Bank Deposits . . . 26,815 60
Pay-roll tailings from Paymasters, settle-
ments with Cashier, parties unpaid . . . 13,945 69
Tax Title, 249 Webster street . . . 115 30

\$8,481,398 25

PAYMENTS.

On Mayor's general draft . \$2,577,846 51
“ “ special drafts . 3,539,633 27

\$6,117,479 78

To Sinking-Fund Commissioners, revenue
payable under authority of Ordinance on
Finance . . . 178,056 85

Amount carried forward, \$6,295,536 63

<i>Amount brought forward,</i>	\$6,295,536 63
County of Suffolk, allowed by Auditor of the County of Suffolk	141,505 82
Liquor licenses, paid State of Massachusetts,	71,513 25
City 5% Loan	45,000 00
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters	11,891 97
Refunded taxes, expenses, costs, etc.	4,664 86
Old claims, Mayor's drafts, of 1882-83, etc.,	932 16
Refunded betterments and costs	178 68
	<u>\$6,571,223 37</u>

RECAPITULATION.

Balance, May 1, 1883	\$2,564,013 55
Receipts from May 1 to September 30, 1883, inclusive	5,917,384 70
	\$8,481,398 25
Payments to September 30, 1883, inclusive .	6,571,223 37
Balance, September 30, 1883	<u>\$1,910,174 88</u>

Balance, September 30, 1883, as per preceding and monthly
statements, as follows : —

Money deposited in the following banks : —

Merchants' National Bank	\$1,197,205 72
National Bank of Redemption	151,464 29
Howard National Bank	184,136 77
Globe National Bank	168,027 59
National Bank of Commerce, Pay-roll tail- ings account	6,169 22
	\$1,707,003 59
Cash and cash vouchers in office	203,171 29
Total as above	<u>\$1,910,174 88</u>

ALFRED T. TURNER,
City Treasurer.

CITY OF



BOSTON.

REPORT

COMMITTEE ON SALARIES

(COMMON COUNCIL)

ON PROPOSED INCREASE IN SALARIES AND ALLOWANCES FOR CLERK-HIRE.

IN COMMON COUNCIL, October 4, 1883.

The Committee on Salaries, on the part of this Board, who were directed to report the total amount of the increase of salaries ordered by the various amendments to the salary ordinance offered on the 20th inst., and whether the present appropriations in the various departments where an increase is ordered are sufficient for the purpose, beg leave to report as follows : —

Officer or Department.	Present Salary.	Salary recommended.	Increase.	Paid from Appropriation for
Inspector of Vinegar	*	\$1,200	\$1,200	Health.
Second Assistant Messenger	800	900	100	Salaries.
Third " "	600	800	200	"
Second " Supt. Chelsea Bridge .	600	700	100	Bridges.
City Registrar's Department (clerk-hire)	5,300	5,600	300	City Registrar's Dep't.
15 Asst. Inspectors of Buildings, each .	1,400	1,500	1,500	Inspection of Buildings.
Superintendent of Common	2,200	3,000	800	Common, etc.
Total increase . . . . .	.....	.....	\$4,200	

* None established.

The committee are informed by the City Auditor that the appropriations for Health, Salaries, City Registrar's department, and Inspection of Buildings are not sufficient to meet the increased allowances; that the appropriation for Bridges is sufficient; and that the appropriation for Common will be sufficient if the expenditures for other purposes are proportionated to the increase.

For the Committee,

FRANCIS J. MURPHY,

Chairman.

CITY OF



BOSTON.

MAJORITY AND MINORITY REPORTS

IN RELATION TO

NEW BUILDINGS AT MOUNT HOPE
CEMETERY.

IN COMMON COUNCIL October 4, 1883.

The Committee on Mt. Hope and Cedar Grove Cemeteries, to whom was referred the order to provide a special appropriation of \$5,000, for new buildings at Mt. Hope Cemetery, having considered the subject, respectfully report that the order ought to pass.

For the Committee,

FRANCIS A. STRATER.

MINORITY REPORT.

IN COMMON COUNCIL, October 4, 1883.

The undersigned respectfully dissents from the foregoing report.

Your committee reported unanimously in favor of an appropriation, for the financial year, of \$18,000, which included the cost of a new house for the gardener. The City Council saw fit to strike off the sum covering cost of the house. With the decreased appropriation the trustees have already expended \$4,500 in excess of the expenditures for the same time last year, — an amount more than sufficient to have built the house. If the expenditures of the trustees continue in the same manner, there will be required a transfer of funds to pay for the regular expenses; and as the

original appropriation was reduced on the ground of economy, and as the reserved fund will be needed for ordinary and regular calls from the departments, the undersigned is obliged to report that, in his opinion, the building of a new house should be postponed until next year, when an appropriation for the same should be put into the tax levy.

MUNROE CHICKERING.

IN COMMON COUNCIL, October 4, 1883.

Read, assigned to the next meeting, at 8 o'clock P.M., and ordered to be printed.

W. P. GREGG,
Clerk of the Common Council.

CITY OF



BOSTON.

ORDINANCE

RELATING TO

HAWKERS AND PEDDLERS.

In the Year One Thousand Eight Hundred and Eighty-Three.

CHAPTER 15.

AN ORDINANCE TO REGULATE THE SALE OF CERTAIN ARTICLES BY HAWKERS AND PEDDLERS.

Be it ordained by the City Council of Boston, as follows:—

SECTION 1. Hawkers and peddlers shall be subject to the provisions of sections forty-seven, forty-eight, forty-nine, and fifty of chapter twenty-two of the Revised Ordinances of Boston now in force.

SECT. 2. No hawker or peddler shall cry for sale, nor announce by bell, horn, or other instrument, the sale of any of the articles enumerated in section one of chapter sixty-eight of the Public Statutes of Massachusetts, in any street of the city between sunset and eight o'clock in the following morning.

SECT. 3. Every person violating any of the provisions of this ordinance shall be liable to a penalty not exceeding twenty dollars for one offence.

IN COMMON COUNCIL, Oct. 4, 1883.

Read, ordered to a second reading, and to be printed.

W. P. GREGG,

Clerk of the Common Council.



CITY OF

BOSTON.

R E Q U E S T

FOR AN

ADDITIONAL APPROPRIATION

FOR

EAST BOSTON FERRIES.

OFFICE OF THE BOARD OF DIRECTORS OF EAST BOSTON FERRIES,
October 2, 1883.

To the Honorable City Council: —

The Board of Directors of the East Boston Ferries, respectfully request an appropriation of fifteen hundred dollars for the purpose of repairing the Eastern Avenue Wharf.

As no appropriation was made when the care of said wharf was turned over to this Board, and as the income cannot be expended for such a purpose, but must be paid into the City Treasury, we are compelled to ask for an amount which, in the opinion of competent experts, is needed to put the property in safe condition for use.

Very respectfully,

For Board of Directors,

CHAS. H. B. BRECK,

President.

CITY OF



BOSTON.

ORDINANCES OF 1883. — CHAPTER 14.

CONCERNING THE DUTIES OF THE SUPER-
INTENDENT OF PRINTING.

In the Year One Thousand Eight Hundred and Eighty-three.

AN ORDINANCE TO AMEND CHAPTER TWENTY-NINE OF THE
REVISED ORDINANCES.

Be it ordained by the City Council of Boston, as follows: —

SECTION 1. Section seven of chapter twenty-nine of the Revised Ordinances is hereby amended by adding the following words: —

The said Superintendent shall, on the fifteenth day of each month, send to the several departments detailed bills of the stock used by them during the preceding month; and the amounts received by the Collector in payment of said bills shall be placed to the credit of the Appropriation for Printing, and used for the purposes for which said appropriation was raised.

IN COMMON COUNCIL, Oct. 4, 1883.

Passed. Sent up for concurrence.

GODFREY MORSE, *President.*

IN BOARD OF ALDERMEN, Oct. 8, 1883.

Concurred.

HUGH O'BRIEN, *Chairman.*

Approved, Oct. 9, 1883.

ALBERT PALMER, *Mayor.*

A true copy. Attest:

FREDERICK E. GOODRICH,
City Clerk.



CITY OF BOSTON.

HIGHLAND STREET RAILWAY.

EIGHTEENTH LOCATION.

IN BOARD OF ALDERMEN, October 8, 1883.

The Committee on Railroads, to whom was recommitted the petition of the Highland Street Railway Company for an additional location in Canal street, respectfully recommend the passage of the accompanying order.

For the Committee,

CHAS. V. WHITTEN,
Chairman.

Ordered, That in addition to the rights heretofore granted the Highland Street Railway Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down an additional track in Canal street, from Traverse street to Causeway street. Said Highland Railway Company are hereby empowered and directed to change the position of the single track now laid down on said Canal street, so that said track, together with the track located by this order, shall conform to the red lines on the plans drawn by Arthur Hodges, Civil Engineer, dated September 15, 1883, and deposited in the office of the Superintendent of Streets. The right to lay down the tracks located by this order is upon the condition that the whole work of laying down the same, the form of rail to be used, and the kind and quality of material used in paving said

tracks, shall be under the direction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them. Also, upon condition that the said Highland Street Railway Company shall accept this order of location, and shall agree, in writing, to comply with the conditions herein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of its passage ; otherwise it shall be null and void.

Passed.

FREDERICK E. GOODRICH,
City Clerk.

CITY OF



BOSTON.

METROPOLITAN RAILROAD.

EIGHTY-NINTH LOCATION.

IN BOARD OF ALDERMEN, Oct. 8, 1883.

The Committee on Railroads, to whom was recommitted the petition of the Metropolitan Railroad Company for a change in the position of its tracks in Battery street, respectfully recommend the passage of the accompanying order.

For the Committee,

CHAS. V. WHITTEN,

Chairman.

Ordered, That, in addition to the rights heretofore granted the Metropolitan Railroad Company to lay down tracks in several of the streets of the City of Boston, said company is hereby authorized and empowered to change the location and position of its tracks in Battery street, in such manner as to give a continuous line of double tracks in the centre of said Battery street, from Commercial street to the East Boston North Ferry slip, as shown by red lines on a plan made by Arthur Hodges, Civil Engineer, dated Aug. 13, 1883, and deposited in the office of the Superintendent of Streets.

The right to relocate the tracks given by this order is upon condition that the whole work of laying down said tracks, the form of rail to be used, and the kind and quality of

material used in paving said tracks shall be under the direction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them. Also, upon condition that the said Metropolitan Railroad Company shall accept this order of location, and shall agree in writing, to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of its passage; otherwise it shall be null and void.

Passed.

FREDERICK E. GOODRICH,

City Clerk.

CITY OF



BOSTON.

NEW PUBLIC LIBRARY BUILDING.

REQUEST

FOR

ADDITIONAL APPROPRIATION FOR PROCURING PLANS.

IN BOARD OF ALDERMEN, Oct. 15, 1883.

The Joint Special Committee who have been appointed to take charge of all matters relating to the erection of a new Public Library, respectfully represent that, in their opinion, a larger sum than that already allowed by the City Council should be placed at their disposal for the purpose of procuring plans for the proposed new building.

It is well known that this building to be erected by the city will occupy a prominent position, fronting on what is known as Copley square, and all will agree that it should not, when completed, suffer in any respect by comparison with the other buildings in its immediate vicinity.

On account of the uses to which it is to be devoted the Library will, of course, be an attraction to students and lovers of literature from every section of the country, and it will be considered one of the most important and interesting public buildings in the city. The structure should not only be outwardly attractive and beautiful, but should in all its internal details embody the latest and most improved ideas in library construction. It is for the future more than for the present we must provide; and the questions of accommodating and making available for use the vast collection of books the city already possesses, and of allowing for the

inevitable growth of the Library, will undoubtedly tax the best architectural skill. There are other considerations in regard to the internal arrangement of a building of this character that are not brought up in ordinary buildings, and but few architects are experienced in this particular branch of construction; but it is the committee's purpose to secure a model building by bringing together, and profiting by, the ideas of many minds.

In order that our new Library shall be in every way creditable to the city, it is evident that we must, in procuring plans, avail ourselves of the highest talent which the country affords; and the committee believe that, if the premiums offered are large enough to compensate for time and labor expended in the preparation of plans, the most skilled architects in the land will be induced to compete. This desired end the committee believe can be reached with an appropriation of \$10,000, which is \$8,000 in excess of the sum already at their disposal, and they accordingly respectfully recommend the passage of the following order.

For the Committee,

CHARLES V. WHITTEN,

Chairman.

Ordered, That the Joint Special Committee on the New Public Library be authorized to expend the sum of eight thousand dollars in premiums for plans for a new Library building; said sum to be in addition to the amount appropriated for the purpose by an order of the City Council passed June 12, 1883.

CITY OF



BOSTON.

SEVENTH ANNUAL REPORT

OF THE

BOSTON WATER BOARD,

FOR THE YEAR ENDING APRIL 30, 1883.

OFFICE OF THE BOSTON WATER BOARD,
October 12, 1883.

To the City Council of the City of Boston: —

The Boston Water Board herewith submit the seventh annual report, together with reports from the City Engineer, Clerk of the Board, Water Registrars, and the Superintendents of the several divisions.

This report should have been submitted during the month of May. The delay arises because of the fact that all the transactions represented therein occurred under the administration of the former Board; and the members of the present Board were therefore under the impression that it should have been prepared and submitted by their predecessors in office. The Corporation Counsel, however, having informed them that they were not required to make the report, we respectfully submit the facts, with the report above named, in order that the requirements of the city ordinances may be met, and the record of the annual reports remain unbroken.

WM. A. SIMMONS, *Chairman*.
GEO. M. HOBBS.
JOHN G. BLAKE.

EARNINGS OF THE WORKS.

The total receipts of the Cochituate Water Works from all sources for the year ending April 30, 1883, are as follows, viz. : —

Stock on hand May 1, 1882	\$100,189 22	
Income from sales of water	1,140,020 88	
Income from shutting off and letting on water and fees	2,617 00	
Sundry receipts by Water Board	21,424 30	
Instalments and interest on Land Bond re- ceived by City Collector	1,241 04	
Profits in manufacturing hydrants, etc., etc., for the year ending March 15, 1882	\$8,109 79	
Less decrease in valuation of stock, March 15, 1882	1,682 84	
		6,426 95
		\$1,271,919 39

The total amount charged to Cochituate Water Works for the year ending April 30, 1883, is as follows, viz. : —

Current expenses	\$249,064 71	
Extension of works paid for out of income	72,929 66	
Interest on funded debt	630,018 30	
		\$952,012 67
Balance April 30, 1883		
		\$319,906 72

Stock on hand April 30, 1883	\$102,083 96	
Paid to Cochituate Water Sink- ing-Fund by City Treasurer	1,241 04	
Paid to Cochituate Water Sink- ing-Fund, April 30, 1883	216, 581 72	
		\$319,906 72

Excess of income over expendi- tures for 1882-3	\$217,822 76
Amount required for Sinking- Fund for 1882-3	193,644 00

Excess of income over requirements	<u>\$24,178 76</u>
--	--------------------

The outstanding Cochituate Water Loans at this date, exclusive of the Additional Supply, are as follows :—

5 per cent. Sterling Loan

(£399,500)	\$1,947,273 98		Due Oct.	1, 1902
5 per cent. Loans	100,000 00	\$100,000	Due April	1, 1906
5 per cent. Loan	1,000 00	1,000	Due Oct.	1, 1907
		300,000	Due Dec.	1, 1897
		200,000	Due Dec.	12, 1897
		450,000	Due June	16, 1898
		540,000	Due Oct.	1, 1898
		250,000	Due April	1, 1899
		625,000	Due Jan.	1, 1901
		688,000	Due April	1, 1901
		330,000	Due July	1, 1901
		413,000	Due April	1, 1903
6 per cent. Loans	4,253,000 00	38,000	Due April	1, 1904
		161,000	Due Jan.	1, 1905
		142,700	Due April	1, 1905
		6,000	Due Oct.	1, 1905
		82,550	Due Jan.	1, 1906
		8,750	Due April	1, 1906
		4,000	Due Oct.	1, 1906
		8,000	Due Jan.	1, 1907
		5,000	Due April	1, 1907
		1,000	Due July	1, 1907
4 per cent. Loan	280,000 00	280,000	Due April	1, 1910

\$6,581,273 98

The total receipts of the Mystic Water Works from all sources for the year ending April 30, 1883, are as follows, viz. :—

Stock on hand May 1, 1882	\$14,471 53
Income from sales of water	252,335 27
Income from shutting off and letting on water, and fees	902 95
Sundry receipts by Water Board	2,370 67
Receipts by Mystic Water Registrar for service- pipes, etc.	5,325 51

\$275,405 93

Amount carried forward,

\$275,405 93

<i>Amount brought forward,</i>		\$275,405 93
The total amount charged to Mystic Water Works for the year ending April 30, 1883, is as follows, viz. : —		
Current expenses	\$84,483 87	
Extension of works paid for out of income	3,770 58	
Interest on funded debt	62,185 00	
Amount paid Chelsea, Somerville, and Everett, under contracts	34,694 33	
		185,133 78
Balance, April 30, 1883		\$90,272 15
Stock on hand, April 30, 1883	\$24,622 62	
Paid to Mystic Water Sinking-Fund, April 30, 1883	65,649 53	
		\$90,272 15
Amount required for Sinking-Fund for year 1882-83	\$96,292 00	
Excess of income over expenditures for year 1882-83	65,649 53	
Excess of requirements over income		\$30,642 47

The outstanding Mystic Water loans at this date are as follows : —

6 per cent. currency Mystic Water Loans .	\$587,000 00	{	1,000	Due April	1, 1885
			35,000	Due April	1, 1886
			60,000	Due Oct.	1, 1886
			50,000	Due Oct.	1, 1887
			3,000	Due April	1, 1888
			100,000	Due July	1, 1890
			51,000	Due Jan.	1, 1891
			139,000	Due July	1, 1891
			67,000	Due Jan.	1, 1892
			42,000	Due July	1, 1892
5 per cent. currency Mystic Water Loans .	310,000 00	{	39,000	Due July	1, 1893
			202,000	Due Oct.	1, 1883
			6,000	Due Oct.	1, 1893
			102,000	Due April	1, 1894
6 per cent. currency Mystic Sewer Loans .	130,000 00	130 000	Due April	1, 1886	
		<u>\$1,027,000 00</u>			

MYSTIC SEWER.

Balance of loan, April 30, 1882 . . .	\$11,138 84
Payments during year 1882-83 . . .	3,882 82
Balance unexpended April 30, 1883 .	<u>\$7,256 02</u>

The following statement shows the appropriations by the City Council for an additional supply of water, with the loans issued to meet them, and the amount of expenditures to this date:—

ADDITIONAL SUPPLY OF WATER.

APPROPRIATIONS.

Oct. 21, 1871.—Transfer from Reserved Fund . .	\$10,000 00
Apr. 12, 1872.—Order for Treasurer to borrow . .	100,000 00
Apr. 11, 1873.—“ “ “ . .	500,000 00
Feb. 26, 1875.—“ “ “ . .	1,500,000 00
July 1, 1876.—“ “ “ . .	2,000,000 00
Apr. 20, 1878.—“ “ “ . .	600,000 00
Apr. 11, 1879.—“ “ “ . .	350,000 00
Aug. 17, 1881.—“ “ “ . .	324,000 00

Total appropriations to April 30, 1883 . . . \$5,384,000 00

Oct. 1, 1875.—Premium on \$1,000,000 bonds, under order of Feb. 26, 1875 .	\$83,700 00
April 1, 1876.—Premium on \$452,000 bonds, under order of Feb. 26, 1875 .	47,786 80
Oct. 1, 1876.—Premium on \$2,000,000 bonds, under order of July 1, 1876 . . .	221,400 00
	352,886 80
	\$5,736,886 80

EXPENDED.

1871-72	\$2,302 81
1872-73	61,278 83
1873-74 including \$20,897,50 discount on bonds sold, January, 1874	114,102 77
1874-75	224,956 68
1875-76	783,613 49
1876-77	1,924,060 24
1877-78	1,257,715 26
1878-79	635,658 08
1879-80	213,350 97
1880-81	35,677 98
1881-82	97,406 78
1882-83	167,621 43
	5,517,745 32

Balance of appropriations unexpended, April 30, 1883 . \$219,141 48

Balance of loans, April 30, 1882,	\$62,762 91	
Loan issued in May, 1882	324,000 00	
		\$386,762 91
Payments during year 1882-83.		167,621 43
Balance unexpended, April 30, 1883		<u>\$219,141 48</u>

The outstanding loans which were made on account of Additional Supply of Water are as follows:—

4 per cent. Loans	. . \$994,000	{ \$324,000 Due April 1, 1912
		{ 82,000 Due July 1, 1908
		{ 588,000 Due April 1, 1908
5 per cent. Loans	. . 3,452,000	{ 1,000,000 Due Oct. 1, 1905
		{ 452,000 Due April 1, 1906
5 per cent. Loan	. . 12,000	{ 2,000,000 Due Oct. 1, 1906
		{ Due April 1, 1908
6 per cent. Loans	. . 648,000	{ 100,000 Due July 1, 1902
		{ 492,000 Due April 1, 1903
		{ 8,000 Due Jan'y 1, 1904
		{ 48,000 Due July 1, 1905
4½ per cent. Loan	. . 268,000	{ Due Oct. 1, 1908
	<u>\$5,374,000</u>	

REPORT OF THE CLERK.

OFFICE OF THE BOSTON WATER BOARD,
BOSTON, May 1, 1883.

LEONARD R. CUTTER, Esq.,

Chairman of the Boston Water Board: —

SIR, — The following is a statement of the receipts and expenditures of the Boston Water Board for the financial year ending April 30, 1883: —

RECEIPTS.

On account of Cochituate Water Works .	\$1,165,303 22
“ “ Mystic Water Works . .	260,934 40
	\$1,426,237 62

Balance of loans unexpended
April 30, 1882, Additional
Supply of Water, \$62,762 91
Loans issued in
May . . . 324,000 00

		\$386,762 91
Mystic Sewer	11,138 84	
Balance Appropriation, New Main, Cochituate Water Works	9,822 96	
Appropriation, Chestnut-Hill Driveway, 1882-83 . .	3,500 00	
Stock purchased in previous years, Cochituate Water Works	106,616 17	
Mystic Water Works . .	14,471 53	
		532,312 41
		\$1,958,550 03

EXPENDITURES.

Current expenses, Cochituate Water Works	\$249,064 71
Current expenses, Mystic Water Works	84,483 87
<i>Amounts carried forward,</i>	\$333,548 58
	\$1,958,550 03

<i>Amounts brought forward,</i>	\$333,548 58	\$1,958,550 03
Extension of Cochituate Water Works	72,929 66	
Extension of Mystic Water Works	3,770 58	
Interest on Cochituate Water Loans	630,018 30	
Interest on Mystic Water Loans	62,185 00	
Chelsea, Somerville, and Everett contracts, account Mystic Water Works .	34,694 33	
Construction, New Main, Cochituate Water Works .	336 18	
Construction, Additional Supply of water	167,621 43	
Construction, Mystic Sewer .	3,882 82	
Surplus Income of Cochituate Water Works to Cochituate Water Sinking Fund . .	217,822 76	
Surplus Income of Mystic Water Works to Mystic Water Sinking-Fund . .	65,649 53	
Chestnut-Hill Driveway. .	3,338 32	
Balance of Appropriation Chestnut-Hill Driveway carried into the Treasury, April 30, 1883	161 68	
		1,595,959 17
		<u>\$362,590 86</u>

April 30, 1883, Balance of loans unexpended, Additional Supply of Water .	\$219,141 48
Mystic Sewer	7,256 02
New Main, Cochituate Water Works	9,486 78
Stock on hand April 30, 1883, Cochituate Water Works .	102,083 96
Mystic Water Works . . .	24,622 62

\$362,590 86

Total Water Debt of the City of Boston.

Cochituate, outstanding,		
April 30, 1883	.	\$11,955,273 98
Mystic, outstanding, April		
30, 1883	.	1,027,000 00
		\$12,982,273 98

Cochituate Water Debt.

Outstanding, April 30,		
1882	.	\$11,631,273 98
Issued in 1882	.	324,000 00
		\$11,955,273 98

Mystic Water Debt.

Outstanding, April 30,		
1882	.	\$1,127,000 00
Paid in 1882-83	.	100,000 00
		\$1,027,000 00

Total Water Sinking-Funds, April 30, 1883.

Cochituate Water Sinking-		
Fund	.	\$2,607,768 46
Mystic Water Sinking-		
Fund	.	506,705 12
		\$3,114,473 58

Trial Balance, Cochituate Water Works, April 30, 1883.

	<i>Dr.</i>	<i>Cr.</i>
Construction Account	\$17,184,751 14	
Cochituate Water Works		\$17,184,751 14
City Treasurer, Loan Account	396,585 87	
Appropriation, Additional Supply of Water		219,141 48
Appropriation, New Main, Cochituate Water Works		9,486 78
Income of Cochituate Water Works		1,270,678 35
Maintenance of Cochituate Water Works	249,064 71	

Amounts carried forward, \$17,830,401 72 \$18,684,057 75

<i>Amounts brought forward,</i>		\$17,830,401 72	\$18,684,057 75
Extension of Cochituate Water Works	72,929,66		
Interest on Cochituate Water Loans	630,018 30		
Stock Account	102,083 96		
City Treasurer, Revenue Account	1,165,303 22		
Appropriation, Chestnut-Hill Driveway		161 68	
City Treasurer, Appropriation Account	3,500 00		
City Treasurer		1,120,017 43	
Funded Debt	11,955,273 98		
Cochituate Water 6% Currency Loan		4,901,000 00	
Cochituate Water 5% Currency Loan		13,000 00	
Cochituate Water 5% Gold Loan		3,552,000 00	
Cochituate Water 5 % Sterling Loan		1,947,273 98	
Cochituate Water 4% Currency Loan		588,000 00	
Cochituate Water 4% Loan		686,000 00	
Cochituate Water 4½% Loan		268,000 00	
Commissioners on the Sinking-Funds	2,607,768 46		
Cochituate Water Sinking-Fund		2,607,768 46	
		<u>\$34,367,279 30</u>	<u>\$34,367,279 30</u>

Trial Balance, Mystic Water Works, April 30, 1883.

	<i>Dr.</i>	<i>Cr.</i>
Construction	\$1,641,762 22	
Mystic Water Works		\$1,641,762 22
City Treasurer, Revenue Account	260,934 40	
Income of Mystic Water Works		275,405 93
Maintenance of Mystic Water Works	84,483 87	
<i>Amounts carried forward,</i>	\$1,987,180 49	\$1,917,168 15

<i>Amounts brought forward,</i>	\$1,987,180 49	\$1,917,168 15
Extension of Mystic Water Works	3,770 58	
Interest on Mystic Water Loans	62,185 00	
Chelsea, Somerville, and Everett contracts	34,694 33	
Stock Account	24,622 62	
City Treasurer, Loan Account, Appropriation, Mystic Sewer, City Treasurer	11,138 84	7,256 02
Funded Mystic Water Debt .	1,027,000 00	199,167 69
Mystic Water 6% Currency Loan		587,000 00
Mystic Water 5% Currency Loan		310,000 00
Mystic Sewer 6% Currency Loan		130,000 00
Commissioners on the Sinking-Funds	506,705 12	
Mystic Water Sinking Fund .		506,705 12
	<u>\$3,657,296 98</u>	<u>\$3,657,296 98</u>

Cost of Construction of the Cochituate Water Works to May 1, 1883.

Cost of Water Works to January 1, 1850, as per final report of Water Commissioners .	\$3,998,051 83
Extension to East Boston	281,065 44
Jamaica-pond aqueduct	13,237 50
New dam at Lake Cochituate	10,940 08
Raising lake two feet, including damages .	28,002 18
Dudley pond, lower dam, and making connections with lake	18,982 23
New main from Brookline reservoir . . .	304,991 83
Land and water rights and land-damages since January 1, 1850	49,486 17
New pipe-yard and repair-shop	25,666 51
Upper yard, buildings, etc.	9,165 63
New water-pipes, East Boston	20,999 43
New main, East Boston	24,878 08
Pumping-works at Lake Cochituate . . .	23,577 69
High-service, stand-pipe, engine-house and engines	103,829 53
<i>Amount carried forward,</i>	<u>\$4,912,874 13</u>

<i>Amount brought forward,</i>	\$4,912,874	13
High-service, South Boston	27,860	29
Chestnut-Hill reservoir, including land	2,461,232	07
Parker-Hill reservoir	228,246	17
Charles-river siphon	26,532	35
Keeper's house, Parker Hill	2,764	90
Temporary high-service, Brighton	7,865	86
New stable at Chestnut-Hill reservoir	8,103	55
Pegan dam, Natick	1,394	06
Willow dam, Natick	1,567	29
High-service, East Boston	22,960	07
New main from Chestnut-Hill reservoir	270,513	22
Cost of laying main pipe for extension in Roxbury, Dorchester, Brighton, and West Roxbury Districts	1,758,512	22
Additional supply of water, including land damages and all expenses	5,517,745	32
Cost of laying main pipe since January 1, 1850	1,936,579	64
	\$17,184,751	14

*Cost of Construction of the Mystic Water Works to May
1, 1883.*

Salaries	\$17,644	61
Engineering	33,746	87
Land damages	91,855	38
Reservoir	141,856	26
Dam	17,167	26
Conduit	129,714	30
Engine-house, coal-shed, and chimney.	36,112	99
Engines	150,096	70
Grubbing pond	9,393	26
Iron pipes	108,437	10
Iron pipes, trenching	61,029	59
City distribution	162,335	23
Hydrants	19,976	21
Stopcocks	19,262	52
Miscellaneous items	14,012	51
Roadway and bridge	3,529	22
Lowering Mystic river	3,012	06
Inspections	1,824	79
Service-pipes and meters	133,858	70
<i>Amount carried forward,</i>	\$1,154,865	56

<i>Amount brought forward,</i>	\$1,154,865 56
Hydrants for Somerville and Medford	2,653 08
Somerville distribution	2,492 10
Dwelling-house for engineer and fireman (pumping-station)	4,871 02
Chelsea extension	37,347 86
Medford extension	3,997 41
Drinking fountains	1,415 05
New line of supply main	203,050 09
Stable and pipe-yard	8,964 64
Extension of engine-house and boiler	33,727 43
New force main	9,875 17
Mystic sewer	122,743 98
New stable, engine-house	1,767 39
Additional force main	24,882 96
Temporary pumping-works	6,905 15
New work-shop	3,000 00
Cost of laying main pipe since 1873	19,203 33
	\$1,641,762 22

Respectfully submitted,

W. E. SWAN,
Clerk of the Boston Water Board.

REPORT OF THE CITY ENGINEER.

OFFICE OF THE CITY ENGINEER,

CITY HALL, BOSTON, May 1, 1883.

L. R. CUTTER, Esq., *Chairman Boston Water Board*:—

SIR,—In accordance with the requirements of the ordinance establishing the Boston Water Board, I respectfully submit the following report on the condition of the Water-Works:—

SUDBURY AND COCHITUATE WORKS.

The Sudbury-river reservoirs were full and overflowing on May 1, 1882. Waste was continued at Dam No. 1 until June 25, from which date until February 17, 1883, no water was allowed to flow into the river except the one and one-half millions per day required by law. Reservoir No. 1 was drawn upon for the supply of the city from July 26 to August 6, lowering its surface from grade 159 to 155. Since the latter date the only water drawn from this reservoir has been the one and one-half million gallons per day.

On February 17, 1883, the waste-gates were opened, and on February 19 the reservoir was practically empty; but on February 26 it had filled, and water was allowed to waste over the dam.

Reservoir No. 2 was full on the 29th of June, when it was drawn upon for the supply of the city. During the months of July and August its surface gradually lowered, and on September 1 it was practically empty. Heavy rains during the month of September raised the reservoir surface about 11 feet, and added about 300,000,000 gallons to the amount in store.

On September 29 it was again drawn upon, and on November 24 the surface had lowered to grade 154.46. The reservoir was again allowed to fill, and on December 27 was within 0.54 of the top of the flash-boards. Being then drawn upon again for the city's supply, its surface fell about 7 feet during the month of January to grade 159.00, near which point it remained until February 17; it then rose rapidly, so that

on the 20th water began to run over the dam, and has so continued to the present time.

About 9,000 cubic yards of loam and muck have been removed from this reservoir during the year.

Reservoir No. 3 was overflowing on May 1, 1882, and it remained near high-water mark until July 22, when it was drawn upon for the city's supply. Between this time and September 22 its surface fell about $7\frac{1}{2}$ feet, standing on the latter date at grade 167.76. On November 24 it had risen to grade 173.04, and being then drawn upon fell about 6 feet in the following month, reaching grade 167.07 on December 27, — the lowest point during the year.

No water has been drawn from this reservoir since that date, and its surface reached the crest of the dam on February 18, since which time water has been flowing over the dam.

The following table and the diagram show the variations of the heights of water in the reservoirs and in Lake Cochituate: —

	Res. No. 1 top of flash- boards.	Res. No. 2 top of flash- boards.	Res. No. 3 crest of Dam.	Farm Pond.	Lake Co- chituate top of flash- boards.
	159.29	167.12	175.24		134.36
May 1, 1882	159.59	167.34	175.42	149.18	133.84
June 1, "	159.65	167.37	175.52	149.24	134.32
July 1, "	158.81	166.67	175.22	149.09	133.13
Aug. 1, "	156.58	157.26	174.44	149.29	131.83
Sept. 1, "	154.77	152.10	169.86	148.51	130.04
Oct. 1, "	155.08	163.49	169.47	149.21	128.61
Nov. 1, "	154.74	160.61	172.13	149.24	127.74
Nov. 24, "	154.32	154.46	173.04	149.16	126.86
Dec. 27, "	154.42	166.58	167.07	149.24	126.38
Feb. 1, 1883	154.51	159.25	171.41	149.34	126.01
Mar. 1, "	157.83	166.05	175.64	149.25	127.10
Apr. 1, "	157.85	166.12	175.50	149.12	128.65
May 1, "	157.68	166.04	175.43	149.23	133.71

Water has been drawn from the Sudbury-river reservoirs as follows:—

May 1, 1882 to June 29, from Reservoir No. 1.

June 29, " July 22, " No. 2.

July 22, " " 26, " No. 2 and 3.

July 26, 1882,	to July 29,	from Reservoir No. 1.
“ 29,	“ Aug. 5,	“ No. 1 and 2.
Aug. 5,	“ Sept. 2,	“ No. 2 and 3.
Sept. 2,	“ “ 12,	“ No. 3.
“ 15,	“ “ 29,	“ “
“ 29,	“ Nov. 24,	“ No. 2.
Nov. 24,	“ Dec. 11,	“ No. 3.
Dec. 14,	“ “ 27,	“ “
“ 27,	“ Mch. 21, 1883,	“ No. 2.
Mch. 21,	“ May 1,	“ No. 1.

Lake Cochituate was 0.52 feet below high-water mark on May 1, 1882; on May 22 it had risen to 134.36, and waste was allowed until May 31.

From June 10 until January 1, 1883, as will be seen by the diagram, there was a gradual lowering of lake surface. During January and a portion of February it remained near grade 126, touching the lowest point of the year, 125.88, on January 20.

On April 1 it had risen to grade 128.65, and as it was nearly six feet below high-water mark, it was evident that it would not fill unless aided from the Sudbury supply.

During the month of April 967,900,000 gallons were run into the lake from the Sudbury river, and at the present time the lake surface is 0.65 feet below the top of the flash-boards. No water has been drawn from Dudley pond during the year.

Surveys and borings were made during the month of March, 1882, in the vicinity of the present outlet dams, for the purpose of determining the most favorable location for a new dam. Plans for a new structure at this point have since been prepared, and an estimate of the cost of the same presented to your Board

AQUEDUCTS AND DISTRIBUTING RESERVOIRS.

The Sudbury-river aqueduct has been in use 358 days, the Cochituate aqueduct 361 days, during the year. The depths of water maintained in the aqueduct at the gate-house at Lake Cochituate have been as follows: May 1 to June 10, $5\frac{1}{2}$ feet; June 10 to July 6, 7 feet; July 6 to August 12, 5 feet; August 12 to August 31, 6 feet; August 31 to September 6, 7 feet; September 6 to September 11, 8 feet; September 11 to October 4, varying heights, following the falling of the lake, October 4 to December 1, $5\frac{1}{2}$ feet; December 1 to February 25, varying levels corresponding to the lake surface; February 25 to May 1,

5½ feet. Both of the aqueducts have been cleaned during the year, and are now in good condition.

The various reservoirs connected with the works are in good condition.

HIGHLAND HIGH-SERVICE WORKS.

As will be seen from the table on page 26 almost all of the water supplied by these works, during the year 1882, was pumped with the Worthington engine.

The total quantity of water pumped was 1,017,088,840 gallons.

Total coal consumed, 1,927,500 lbs., of which 13.2 per cent. were ashes and clinkers.

Average lift, 111.75 feet.

Quantity pumped per lb. of coal, 527.7 gallons.

Average daily quantity pumped, 2,786,545 gallons, an increase of 15.7 per cent. over that of 1881.

Average duty, 49,178,800 ft. lbs. per 100 lbs. of coal, without deduction for ashes and clinkers. As stated in last year's report, the coal supplied at this station is of poor quality.

Cost of Pumping.

Salaries	.	.	.	.	.	.	.	\$3,782 86
Fuel	.	.	.	.	.	.	.	5,427 50
Repairs	.	.	.	.	.	.	.	118 84
Oil, waste, and packing	.	.	.	.	.	.	.	193 54
Small supplies, gas, etc.	.	.	.	.	.	.	.	251 36
								\$9,774 10

Cost per million gallons raised one foot high, \$0.086.

MYSTIC PUMPING-STATION AND RESERVOIR.

The table on page 25 shows the work done by the engines at this station during each month.

Engine No. 1 was in use 1,888 hours.

“ 2 “ 1,039 “

“ 3 “ 5,725 “ 45 minutes.

Total amount pumped, 2,399,896,690 gallons.

Total amount of coal consumed, 5,889,300 lbs., of which 8.1 per cent. were ashes and clinkers.

Average lift, 150.11 feet.

Quantity pumped per lb. of coal, 407.5 gallons.

Average duty of the three engines (no deductions), 51,015,800 ft. lbs. per 100 lbs. of coal.

Daily average amount pumped, 6,575,059 gallons, or 91.5 per cent. of the amount pumped in 1881.

Cost of Pumping.

Salaries	\$6,603 34
Fuel	15,921 00
Repairs	251 87
Oil, waste, and packing	476 70
Small supplies	24 90
	\$23,277 81

Cost per million gallons lifted one foot high, \$0.0646.

An inspection of the boilers at this station has shown that four of them, or one-half the whole number, are so badly decayed as not to warrant further repairs. An estimate of the cost of replacing them with three larger boilers of improved form has been presented to your Board, and the work should be done at once. The engines and buildings are in good order.

The average daily quantity pumped at the East Boston station has been 422,540 gallons.

At the Brighton station the amount has varied from 90,000 to 225,000 gallons.

The machinery and buildings at both of these stations are in good order.

MYSTIC WORKS.

MYSTIC LAKE.

On May 1, 1882, water was flowing over the outlet dam, and waste continued during the greater portion of the months of May and June. During July, August, and until Sept. 11, the lake surface fell, and on the latter date stood at grade 2.40 above tide marsh level, or 4.60 feet below high water. On Oct. 1 it had risen to grade 4.15; on Nov. 1, to 5.42; on Dec. 1, to 5.43; on Jan. 1, to 6.02 and on Jan. 22, waste was begun and has been continued (with the exception of a few days) up to the present time.

MYSTIC-VALLEY SEWER.

The sewer and its adjuncts, as described in my report to your Board for the year 1881-82, page 27, has been in good working order during the year. In July, 1882, the care of the subsiding and filtering works in Winchester, which had been for some time in regular service, was transferred from this department to the Superintendent of the Mystic Works.

MYSTIC CONDUIT AND RESERVOIRS.

With the exception of three days, this conduit has been in constant service.

Owing to the small capacity of the reservoir, the flow in the conduit cannot be interrupted for any length of time for examinations and repairs. This year it was cleaned as thoroughly as the short time at hand would allow, and I had a careful survey made of a short portion which was known to be in an unsatisfactory condition. The survey showed that a section of the conduit, 150 feet in length, is badly distorted and in an unsafe condition. I do not apprehend any immediate danger; but, as a collapse of the conduit at that point would seriously interfere with the supply, the defective portion should be rebuilt during the coming season. The cost of this work will be increased by the necessity of maintaining the supply around the damaged portion of the conduit during the repairs. An amount covering the estimated cost of thoroughly repairing this section, is included in the the appropriation for the coming year.

The reservoir and grounds have received the usual care.

DISTRIBUTION.

The distributing pipes of the Cochituate works have been extended 29,316 feet, and the Mystic works 6,544 feet.

The pipes ordered in view of the changes recommended in my letter to your Board of January 4, 1883, for the purpose of furnishing greater facilities to the fire service, are being laid, and it is expected that the improvements contemplated will be completed before the end of the year.

CONSUMPTION.

The average daily consumption during the year 1882 was as follows: —

From Lake Cochituate and Sudbury river	31,970 800
From Mystic lake	6,574 400
Total	38,545 200

an increase of 330,300 gallons per day, or about one per cent. over that of 1881.

The daily average consumption per head of population has been 91 gallons from the Sudbury and Cochituate Works, 77 gallons from the Mystic Works, and 88 gallons from the combined supplies.

The consumption on the Highland high-service works shows a large increase over that of the previous year. The consumption of the year 1882 was 15.7 per cent. in excess of that of 1881, and the figures of the present year show about the same percentage of increase over those of the corresponding months of 1882.

QUALITY.

The quality of the Mystic water has been good throughout the year.

In the supply from Lake Cochituate, and from Sudbury river, with the exception of a short period during the summer, the objectionable taste and smell, so conspicuously noticeable in the fall of 1881, has not been complained of. *Algæ*, however, have made their usual appearance in Reservoirs No. 1 and 3 of the Sudbury-river supply; but Reservoir No. 2, as heretofore, has been free from them. As in previous years, various theories have been advanced for the cause of their formation and growth and of the occasional bad taste of the water. In regard to this disputed subject, I beg to refer to the report (City Doc. No. 129, 1883) of the special commission in September, 1882, where new and valuable facts will be found in the testimony collected by the commission. It is probable, by the comparison of many facts bearing on this subject, that all the causes of the evil may be discovered.

The trouble complained of in Boston is common to other places, differing in their climate, in the source, quality, and quantity of their supply, and in the nature and construction of their reservoirs. Various remedies have been tried which have been either inadequate or partially successful.

It can only be hoped that this important question may be solved in time by patient, systematic, and extended observation. At present, the only positive remedy is, as I said in my last year's report, "the isolation, when practicable, of the reservoirs, or portions of the supply, which are contaminated."

In connection with the subject of the quality of water it may be added that, in pursuance of instructions received, extensive soundings were made last spring, to estimate the amount of mud found at the bottom of the large meadows adjoining Lake Cochituate and of Whitehall pond. The amount of vegetable loam or mud contained in the present Sudbury-river reservoirs was also computed. The results of this work are embodied in a letter addressed in April to the Joint Standing Committee on Water of the City Council, a copy of which was transmitted to your Board. (See City Doc. No. 188.)

SUDBURY-RIVER RESERVOIR No. 4.

At the time of my last report to your Board the first preparation had been made on the site of the dam, and the trench excavation for the central wall had just been commenced; Since then nearly 24,000 cubic yards have been excavated. As was expected, from the indications given by the soundings, the bed rock was reached at all points, but at a depth almost everywhere greater than was originally anticipated. This result is due to the fact that the solid ledge was found to be covered with a quantity of boulders, of all sizes, which had to be removed. In some cases the excess of depth was from 12 feet to 15 feet. A large portion of the trench was dug during the winter months.

On May 1, 1883, the concrete wall, with the exception of 50 feet, had been started on the whole rock bottom, and had been built for more than 1,200 feet to the original surface of the ground.

The amount of concrete laid at that time was 7,718 cubic yards. All the concrete has been made with mixers driven by steam-power. The up-stream face of the wall is covered with a plastering of Portland cement-mortar.

The waste-way is completed, the overflow nearly so, and the gate-house has been commenced, and is now ready to receive the large iron pipes which are to be laid in connection with it.

The earth embankment has been started in the bottom of the valley, and as soon as the trenches are refilled to the original surface of the ground, its construction can proceed at a rapid rate.

During the winter the stone-crusher used at Chestnut-Hill reservoir was transferred to Ashland, and there are now 2,700 cubic yards of crushed stone stored ready to be used for making concrete. The crushed stone has been found better and more economical than screened gravel for concrete purposes.

Loam, to the amount of about 20,000 cubic yards, is piled up in the meadow above the dam and ready to be removed over the railway track which extends along the valley. It is expected that in a few days a locomotive and cars will be procured to finish the ballasting of this track, and to make it ready for service.

The construction of the foundations of the dam, the most difficult part of the work, is now mostly completed; the rest of the structure, although of great magnitude, does not present the same difficulties, but will require close supervision,

mainly for the erection of the upper part of the concrete core. The completion of the dam, and the removal of the loam, especially if the City Government makes the appropriation necessary for stripping the entire area covered by the reservoir, involves the handling of a vast amount of material, and the employment of a large number of men, and must be most systematically organized in order to secure economical results.

WASTE.

In view of the expected action of the City Government on the question of the waste of water, I need not add any comments to the frequent recommendations made by this department.

In May, 1882, the Water Committee, under the instruction of the City Council, made a report on the waste of water, embodying important information, and some recommendations which were not adopted.

Since then, on April 11, 1883, I furnished to the Water Committee, at its request, an estimate of the cost of adopting similar measures for the reduction of the water consumption; a copy of this letter has been transmitted to your Board.

At your request the Deacon meters owned by the city were applied to the East Boston district, this spring, and are now in operation. Although the location of the service-cocks in the streets does not allow the same facilities as when they are located in the sidewalks for recording the individual waste of the consumers, the indications given by the meters are very valuable, and there is no doubt that the house-to-house inspection, in connection with the constant recording of the apparatus, will produce satisfactory results in checking the waste in this district.

CONDITIONS AND REQUIREMENTS OF THE WORK.

The Cochituate and Sudbury-river conduits, and the other structures belonging to the same system, are in good condition.

The small fall of snow and rain during the last spring has been the cause of a great reduction in the usual flow of the streams, and Lake Cochituate would not have been refilled to high-water mark without the aid of Sudbury river.

The insufficient capacity of the storage reservoirs, with the present consumption of water, remains a source of uneasiness in view of the possibility of a dry season, and of the time necessary for the completion of Reservoir No. 4.

The extensions and additions which I think desirable in

connection with the water supply are enumerated in my letter of February 14, in which I give to the Board an estimate of their cost. Among them are the new dam at the outlet of Lake Cochituate, in regard to which I would refer the Board to my annual report for 1879-1880, and the new pumping machinery for the Mystic water-works.

Since my last report no action has been taken as to the policy to be followed in regard to the supply of East Boston. On one hand the experience of the summer of 1880, when Mystic lake was drawn down to an exceptionally low level, has shown that the yield of the water there is not sufficiently abundant in a dry year when East Boston is added to the district. On the other, if East Boston is left dependent on the Cochituate supply, the pressure is insufficient.

Unless a direct pipe, connected with the Cochituate system, is laid to East Boston, this district must be supplied again from the Mystic works, in which case an addition to that source of supply, such as can be had from the Shawshine river, is immediately needed.

In either case, owing to the large consumption reached in the winter, the capacity of the pumping machinery must be increased.

The connection of the two parts of the Sudbury-river conduit across Farm pond was a part of the original design of the system, but it was not expected that its construction would be required so soon; the bad quality of the water of the pond in the fall of 1881 has shown the importance of providing permanent means for the isolation of that sheet of water in case of emergency. This subject is familiar to the Board, and is now under consideration by the City Government.

I cannot terminate this report without calling again the attention of the Board to the necessity of an increase in the capacity of the high-service works, which is rendered more imperative by the high rate of increase in the consumption of water from that service. I need not recall the numerous statements made by my predecessor and myself, and the former recommendations made by the Board to the City Government, in regard to the necessity of making an appropriation for building the proposed new works. I will only refer to my letter of March 12, 1883, in answer to a vote of your Board, in which I renew the expression of my opinion as to the necessity of commencing without delay the work of construction.

With this report will be found some statistical tables in regard to the rainfall, the consumption of water, the yield of the different water-sheds, etc., and a diagram presenting a

synopsis of the fluctuations of the Sudbury-river reservoirs, and Lake Cochituate.

Until the 1st of January, 1883, it had been found advisable to keep several rain-gauges, in order to ascertain the variations of the water precipitation at various points of the watering shed of Sudbury river.

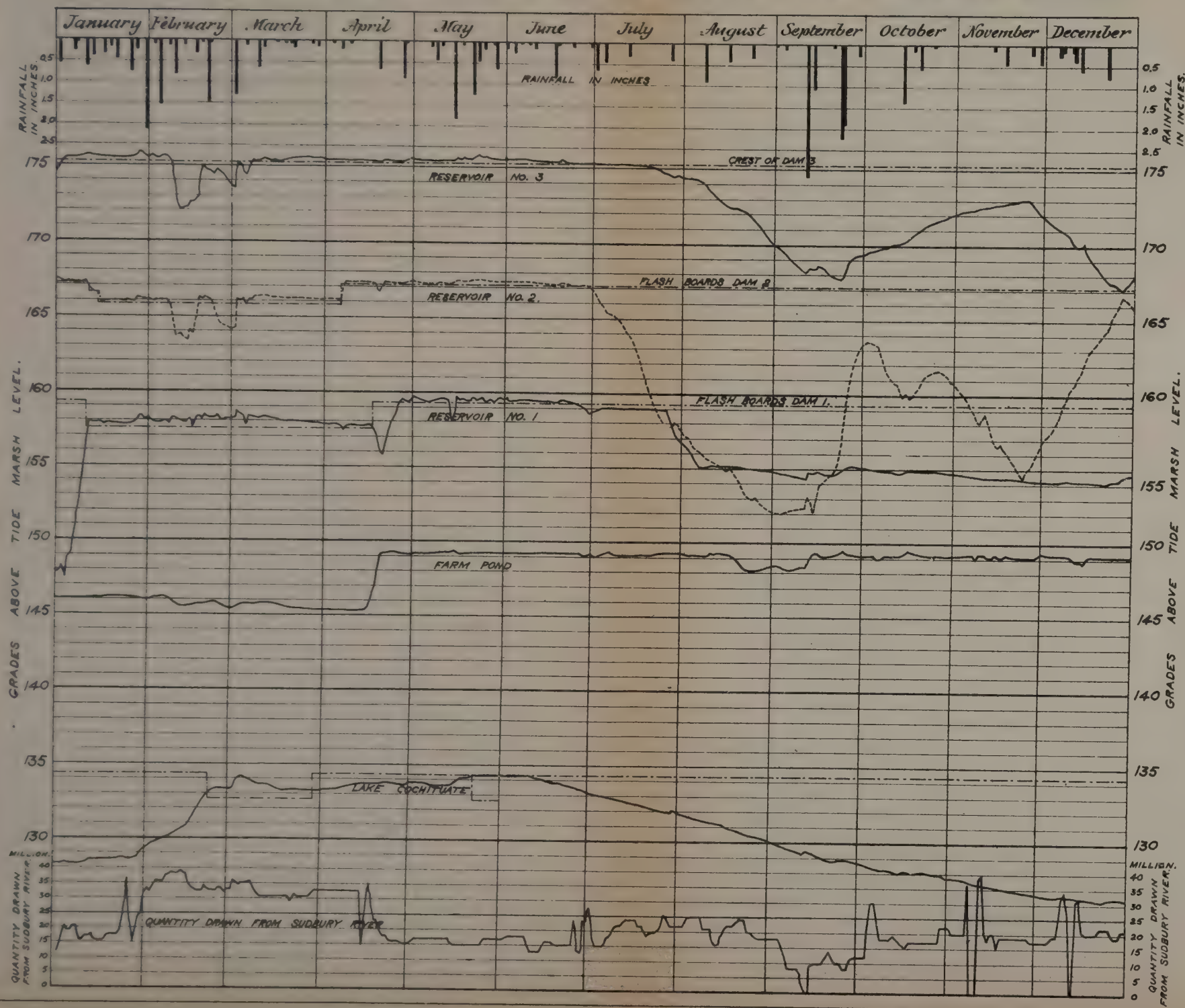
These records were no longer thought necessary, and the persons in charge of the gauges have been discharged.

HENRY M. WIGHTMAN,

City Engineer.

BOSTON WATER WORKS.

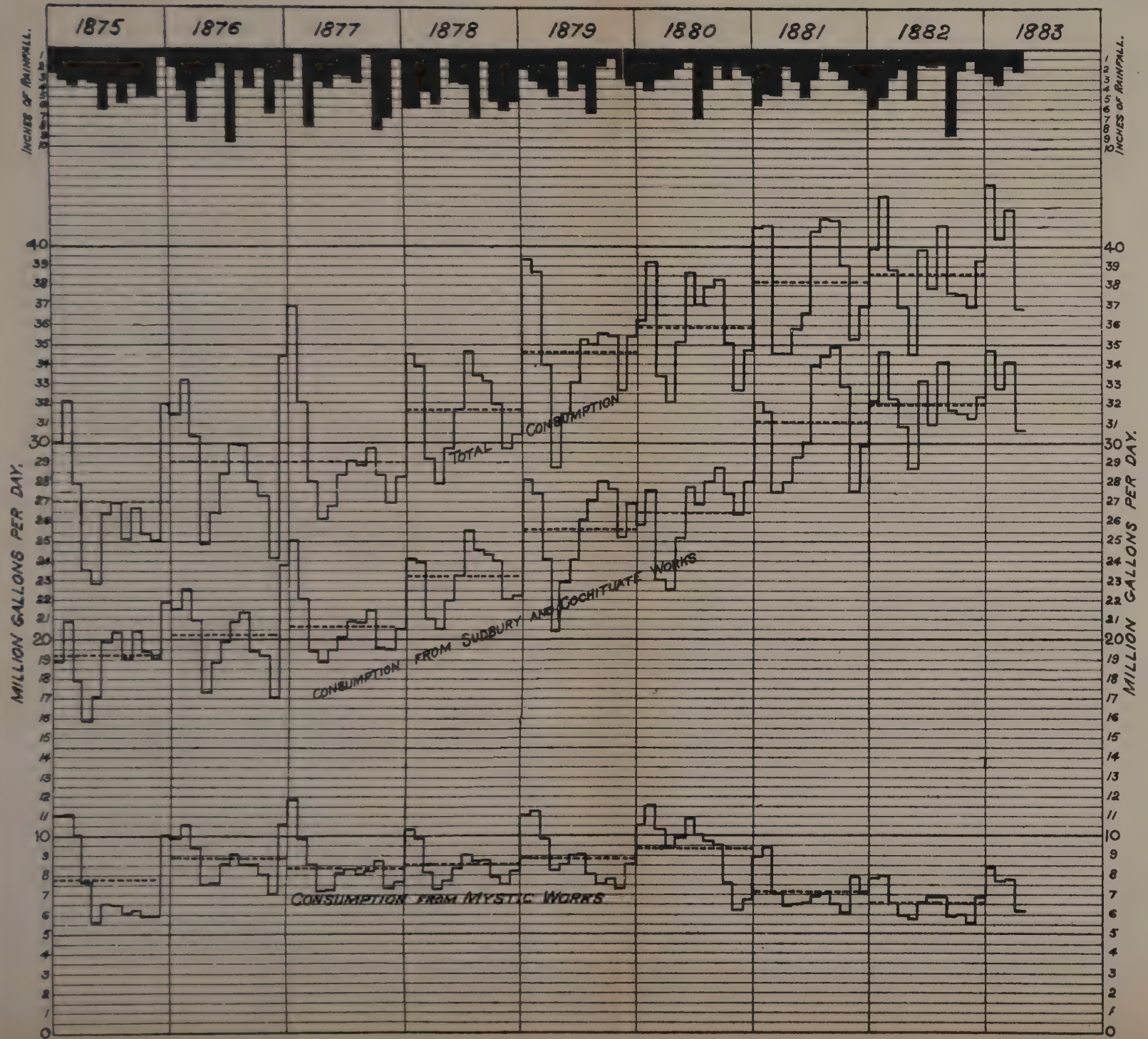
Diagram showing the heights of the Sudbury River Reservoirs, Farm Pond and Lake Cochituate, the daily amount drawn from the Sudbury River; and the Rainfall on the Sudbury River Water Shed during the year 1882.



BOSTON WATER WORKS.

Diagram showing the rainfall and daily average consumption
for each month.

Yearly Averages shown thus -----



Statement of Operations at the Mystic Pumping-Station for the Year 1882.

1882.	ENGINE NO. 1.			ENGINE NO. 2.			ENGINE NO. 3.			Total amount pumped.	Gallons.	Daily average amount pumped.	Lbs.	Per cent. ashes and clikkers.	Quantity pumped per lb. coal.	Average lift in feet.	Duty in ft. lbs. per 100 lbs. of total coal.
	Pumping time.		Amount pumped.	Pumping time.		Amount pumped.	Pumping time.		Amount pumped.								
	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.								
January	170	15	31,312,266	66	15	12,906,272	639	30	197,793,792	242,012,330	7,806,849	18,823	7.7	414.8	150.57	52,083,600	
February	100	. .	18,240,196				669	. . .	204,178,944	222,419,140	7,943,541	18,804	7.8	422.4	150.16	52,904,700	
March	586	45	116,915,072	357	30	72,074,112	49	. . .	14,577,152	203,566,336	6,566,655	17,081	7.2	384.5	149.82	48,037,000	
April	629	15	121,272,630	214	15	42,820,580	45	45	14,651,392	178,744,602	5,958,153	15,550	7.1	383.2	149.95	47,917,500	
May	390	15	73,509,518	204	15	38,949,846	216	30	66,445,312	178,904,676	5,771,119	14,581	7.9	395.8	149.67	49,406,500	
June	11	30	2,243,558				629	. . .	198,384,640	200,628,198	6,687,607	15,900	8.2	420.6	149.80	52,547,400	
July							675	45	213,295,616	213,295,616	6,880,504	16,055	8.4	428.6	149.88	53,570,300	
August							670	. . .	214,350,848	214,350,848	6,914,543	15,949	8.8	433.5	150.23	54,318,500	
September				16	45	3,725,774	577	45	174,905,856	178,631,630	5,954,388	14,383	8.3	414.	150.68	52,023,500	
October				4	30	777,348	607	30	185,630,720	186,408,068	6,013,163	14,855	8.6	404.8	150.44	50,788,400	
November						68,735,200	330	30	98,457,088	167,192,288	5,573,076	14,583	8.9	382.2	150.02	47,813,800	
December				175	30	32,384,366	615	30	181,358,592	213,742,958	6,894,934	17,184	8.8	401.2	150.15	50,245,900	
Totals	1,888		363,493,240	1,039		272,373,498	5,725	45	1,764,029,952	2,399,896,690	6,575,059	16,135	8.1	407.5	150.11	51,015,800	

Statement of Operations at the Highland Pumping-Station for the year 1882.

1880.	WORTHINGTON ENGINE.			ENGINE NOS. 1 AND 2.			Total amount pumped.	Daily average pumped.	Total amount of coal consumed.	Daily average amount of coal consumed.	Amount Ashes and clinkers.	Per cent. ashes and clinkers.	Quantity pumped per lb. of coal	Average lift in ft.	Duty in ft. lbs. per 100 lbs. of total coal.
	Total Pumping Time.		Total Amount Pumped.	Total pump- ing-time of each engine.	Amount pumped by both engines.										
	Hrs.	Min.													
	Hrs.	Min.	Gallons.	Hrs.	Min.	Gallons.									
January	630	. .	81,406,000	18	. .	2,660,200	84,066,200	2,711,800	171,500	5,532	25,830	15.1	490.2	112.04	45,801,200
February	586	30	76,306,500	1	30	217,140	76,523,640	2,733,000	153,200	5,471	23,375	15.3	499.5	112.96	47,057,000
March	651	. .	79,112,000	. .	. .		79,112,000	2,552,000	154,400	4,981	21,710	14.1	512.4	110.65	47,283,400
April	630	. .	77,252,000	. .	. .		77,252,000	2,575,100	145,500	4,850	19,180	13.2	530.9	109.96	48,689,100
May	650	30	86,552,000	. .	. .		86,552,000	2,792,000	156,900	5,061	19,625	12.5	551.6	110.42	50,799,600
June	629	45	91,217,500	. .	. .		91,217,500	3,040,583	167,400	5,580	20,620	12.3	544.9	112.50	51,124,600
July	647	45	93,713,000	. .	. .		93,713,000	3,023,000	176,200	5,684	22,125	12.6	531.9	112.50	49,900,100
August	647	. .	93,434,000	. .	. .		92,434,000	3,014,000	178,900	5,771	22,590	12.6	522.3	113.19	49,302,500
September	630	. .	83,390,000	. .	. .		83,390,000	2,779,667	153,700	5,123	19,535	12.7	542.6	111.57	50,485,300
October	636	. .	82,878,500	. .	. .		82,878,500	2,673,500	155,400	5,013	22,590	14.5	533.3	111.80	49,729,500
November	630	. .	80,941,000	. .	. .		80,941,000	2,698,033	145,400	4,847	17,710	12.2	556.7	110.65	51,371,000
December	651	. .	83,009,000	. .	. .		88,009,000	2,839,000	169,000	5,452	19,985	11.8	520.8	112.73	48,959,700
Total	7,619	30	1,014,211,500	19	30	2,877,340	1,017,088,840	2,786,545	1,927,500	5,281	254,875	13.2	527.7	111.75	49,178,800

Table showing the Rainfall at Lake Cochituate for the Year 1882.

1882.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1						0.14	0.67					
2	0.70		1.47		0.04							
3		0.05										
4				0.06		0.56						
5		1.50					0.43					
6			0.13									0.35
7	0.22			0.11								0.14
8	0.07							0.50				
9					0.60				0.04			
10		0.83	0.65	0.06				0.02				0.24
11	0.60				0.12	0.22						0.23
12			0.12						3.24			
13							0.23					0.49
14	0.32									1.42	0.10	
15					1.75				1.32			
16								0.27				
17	0.30	0.34								0.10	0.31	
18					0.17	0.80						
19	0.08	0.03	0.04	0.70		0.15	0.10			0.64		
20					1.04							
21	0.49	1.15	0.15									
22		0.06							3.30			0.72
23					0.43							
24								0.35	0.73	0.06		
25					0.16				0.28			
26	0.84										0.18	
27			0.12	0.93								
28							2.06					
29	0.07			0.03	0.42				0.29		0.34	
30			0.08									
31	2.24											
Total .	5.93	3.96	2.76	1.89	4.73	1.87	3.49	1.14	9.20	2.22	0.93	2.17

Total for the year 40.29 inches.

Statement showing Amount of Water drawn from Lake Cochituate; Amount wasted; Amount of Rainfall collected in Lake; Amount received into Lake from Sudbury River; Percentage of Rainfall collected, etc., 1852 to 1881. Water-shed of Lake = 12,077 acres.

YEAR.	Amount of Water drawn from Lake.	Amount of Water wasted from Lake.	Amount received into Lake from Sudbury River.	STORAGE.		Total amount of Rainfall collected in Lake.	Daily average amount of Rainfall collected in Lake.	Rainfall.	Rainfall collected.	Percentage of Rainfall collected.
				Gain.	Loss.			Inches.	Inches.	Per cent.
1852	2,974,042,800	4,020,566,900		261,300,000	261,300,000	6,733,249,700	18,396,900	47.93	20.61	43.
1853	3,117,939,500	3,166,417,500		239,580,000		6,523,937,000	17,873,800	55.73	19.51	35.
1854	3,614,230,000	4,187,733,000			217,800,000	7,584,163,000	20,778,500	43.15	22.87	53.
1855	3,776,399,500	No account kept			326,700,000			54.96		
1856	4,409,787,600	"		598,950,000				40.80		
1857	4,644,990,000	10,625,900,000		32,670,000		15,303,560,000	41,927,600	63.10	46.69	74.
1858	4,689,155,000	1,934,500,000			141,570,000	6,482,085,000	17,759,000	48.66	19.46	40.
1859	4,808,875,000	7,569,000,000		283,140,000		12,661,015,000	34,687,700	49.02	38.24	78.
1860	6,309,108,000	None.		174,240,000		6,483,348,000	17,714,100	55.44	19.40	35.
1861	6,639,095,900	3,377,559,000				8,557,394,900	23,444,900	45.44	25.45	56.
1862	6,059,000,000	33,200,000		1,306,800,000		7,399,000,000	20,271,200	49.69	22.36	45.
1863	5,927,052,500	2,165,696,500		762,300,000		8,855,049,000	24,230,400	69.30	27.03	39.
1864	6,105,306,700	1,368,746,000			1,848,577,000	5,625,475,700	15,370,200	42.60	17.04	40.
1865	4,621,630,000	1,688,120,700		743,242,500		7,052,993,200	19,323,300	49.46	21.27	43.
1866	4,463,585,000	None.		742,242,500		5,206,827,500	14,265,300	62.32	15.58	25.

1867	4,951,225,000	2,482,041,000			698,811,000	6,734,455,000	18,450,600	56.25	20.25	36.0
1868	5,405,515,000	2,507,684,000		346,371,000		8,259,570,000	22,567,200	49.71	24.86	50.
1869	5,500,696,000	1,635,570,000		480,882,000		7,620,203,000	20,877,300	64.34	23.16	36.
1870	5,477,810,000	4,818,971,000			1,736,085,000	8,560,696,000	22,453,900	55.89	26.27	47.
1871	5,223,500,000	None.			250,933,000	4,972,567,000	13,623,500	45.39	14.98	33.
1872	5,775,151,200	None.	1,676,666,400			5,642,480,300	15,416,600	48.47	16.96	35.
1873	6,511,826,900	2,917,977,000			515,132,000	8,914,671,900	24,423,800	45.43	27.26	60.
1874	6,623,972,900	1,145,851,700			1,367,715,000	6,402,109,600	17,540,000	35.93	19.40	54.
1875	7,092,955,500	None.	2,555,800,000	1,222,885,000		5,760,040,500	15,780,900	45.49	17.74	39.
1876	7,277,175,200	1,619,243,800	2,528,300,000	43,438,000		6,411,557,000	17,517,900	48.49	19.40	40.
1877	7,626,889,200	1,484,978,600	1,894,350,000	378,727,000		7,596,244,800	20,811,600	43.80	23.21	53.
1878	7,743,904,700	3,341,875,000	2,668,300,000	219,788,000		8,637,267,700	23,663,700	53.58	26.25	49.
1879	6,051,838,900	1,523,361,400	411,300,000		1,322,697,300	5,841,203,000	16,003,300	38.01	17.86	47.
1880	4,284,147,100	65,577,700	826,700,000		146,265,000	3,376,759,800	9,226,100	35.83	10.30	29.
1881	2,846,459,700	2,231,016,700	187,600,000	468,089,400		5,357,965,800	14,679,400	41.09	16.34	40.
1882	3,935,490,600	1,358,543,700			357,334,700	4,936,699,600	13,525,200	40.29	15.05	37.
Averages . .	5,306,088,700	2,319,659,700				7,223,882,300	19,780,500	48.57	21.62	44.5

¹ Observation of rainfall at Lake Cochituate commenced 1852, and these observations are assumed as correct for the whole district.

² Lake raised two feet.

Daily Average Consumption of Water in Gallons, from the Cochituate and Mystic Works.

COCHITUATE WORKS.								MYSTIC WORKS.						
MONTH.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1876.	1877.	1878.	1879.	1880.	1881.	1882.
January	21,550,200	25,129,300	24,210,600	28,190,200	25,817,600	32,121,900	32,151,100	9,896,737	11,859,854	10,325,705	11,111,972	10,511,279	8,756,500	7,816,200
February	22,675,200	22,071,800	23,848,700	27,446,300	27,625,800	31,607,900	34,662,300	10,601,013	9,982,621	9,944,140	12,253,090	11,616,248	9,428,700	7,937,300
March	20,931,500	19,446,600	21,019,500	24,163,800	23,095,700	27,531,700	32,256,300	9,396,910	8,578,935	8,192,825	9,851,219	10,324,323	7,042,800	6,573,700
April	17,300,500	18,988,800	20,628,300	20,421,800	22,670,700	28,146,200	30,827,000	7,568,052	7,200,533	7,365,951	8,311,620	9,400,931	6,420,700	5,946,100
May	18,837,800	19,520,300	22,023,800	22,953,800	25,238,200	29,307,600	28,738,000	7,610,317	7,250,492	7,717,476	8,523,744	9,962,213	6,502,900	5,793,600
June	19,872,300	20,192,400	23,360,600	24,101,200	27,795,400	30,059,200	33,178,400	8,560,937	8,190,530	8,383,667	9,054,267	10,891,057	6,556,700	6,664,400
July	20,820,600	20,799,400	25,620,000	26,156,900	26,951,800	33,885,300	30,992,600	9,152,492	8,371,295	9,087,658	9,150,025	10,051,544	6,906,400	6,881,400
August	21,333,900	20,778,400	24,679,600	27,075,100	28,175,100	34,472,200	34,149,300	8,600,788	8,121,402	8,751,038	8,027,325	9,754,149	7,011,700	6,912,200
September . . .	19,430,800	21,499,500	24,469,700	28,017,800	28,734,400	34,801,500	31,691,600	8,619,557	8,242,180	8,767,490	7,614,951	9,591,891	6,587,100	5,964,100
October	19,214,000	19,598,700	24,100,700	27,702,600	27,487,900	32,871,200	31,563,800	8,081,052	8,780,799	7,900,000	7,771,578	7,634,888	6,195,400	6,011,300
November	17,023,700	19,577,500	22,200,600	25,299,200	26,458,400	27,519,800	31,318,700	7,153,629	7,396,879	7,525,957	7,372,892	6,245,891	7,870,400	5,577,400
December	23,783,000	20,535,900	22,298,500	26,831,900	28,010,500	29,860,400	32,352,800	10,673,036	7,732,921	8,227,314	8,585,799	6,778,046	7,056,900	6,877,600
Yearly average,	20,237,700	20,673,500	23,205,700	25,695,900	26,500,000	31,020,200	31,970,800	8,825,808	8,386,257	8,515,768	8,883,470	9,387,879	7,194,700	6,574,400

Statement showing Amount of Water diverted from Sudbury to Lake Cochituate and Chestnut-Hill Reservoir; Amount wasted; Amount of flow in River; Percentage of Rainfall Collected, etc., 1875 to 1882.

(Water-shed from 1875 to 1878, inclusive, = 77,764 sq. miles; in 1879, = 78,238 sq. miles, and in 1880, 1881, and 1882, = 76,305 sq. miles.)

YEAR.	Amount of Water diverted to Lake Cochituate and Chestnut-Hill Reservoir.	Amount of Water wasted from River.	STORAGE.		Total amount of flow in River.	Daily average amount of flow in River.	Rainfall.	Rainfall collected.	Percentage of collected Rainfall.
			Gain.	Loss.					
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Inches.	Inches.	Per cent.
1875	2,555,800,000	24,971,600,000	66,300,000		27,593,700,000	75,599,200	45.490	20.418	44.88
1876	2,528,300,000	29,942,300,000		160,700,000	32,309,900,000	88,278,400	49.563	23.908	48.24
1877	1,894,350,000	32,438,300,000	112,100,000		34,444,750,000	94,369,200	44.018	25.487	57.90
1878	3,422,100,000	37,125,200,000	654,700,000		41,202,000,000	112,882,200	57.931	30.487	52.63
1879	3,749,200,000	20,817,500,000	962,200,000		25,528,900,000	69,942,200	41.419	18.775	45.33
1880	6,230,200,000	11,290,000,000		958,600,000	16,501,600,000	45,250,300	38.177	12.487	32.71
1881	8,845,300,000	17,279,000,000	751,700,000		26,876,000,000	73,633,900	44.169	20.257	45.88
1882	7,735,200,000	16,273,900,000		352,600,000	23,656,500,000	64,812,300	39.394	17.841	45.29
Averages	4,620,000,000	23,767,200,000			28,521,700,000	78,096,000	45.020	21.208	47.11

Statement showing Amount of Water drawn from Mystic Lake; Amount wasted; Amount of Rainfall collected in Lake; Percentage of Rainfall collected, etc., 1876 to 1882; Water-shed of Lake, 17,200 acres.

YEAR.	Amount of Water drawn from Lake.	Amount of Water wasted from Lake.	STORAGE.		Total amount of Rainfall collected in Lake.	Daily average amount of Rainfall col- lected in Lake.	Rainfall.	Rainfall collected.	Percentage of Rainfall collected.
			Gain.	Loss.					
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Inches.	Inches.	Per cent.
1876	3,230,101,300	6,369,774,700		32,583,000	9,567,293,000	26,140,100	47.00	20.49	43.6
1877	3,069,554,800	7,250,223,500		16,291,400	10,303,486,900	28,228,700	43.095	22.06	51.2
1878	3,354,371,200	8,714,479,600		28,672,900	12,040,177,900	32,986,800	54.065	25.79	47.7
1879	3,736,107,800	4,625,691,800		233,944,900	8,127,854,700	22,268,000	35.30	17.61	49.9
1880	3,692,195,700	2,158,761,200		113,500,000	5,737,456,900	15,676,100	34.42	12.28	35.7
1881	2,815,579,900	5,395,200,000	371,200,000		8,582,000,000	23,512,300	41.91	18.37	43.8
1882	2,570,896,700	4,444,668,000	15,000,000		7,030,564,700	19,261,800	39.165	15.05	38.4
Averages	3,209,829,600	5,565,542,600			8,769,833,400	24,010,500	42.14	18.81	44.6

Table showing the Rainfall (in inches and hundredths) at various places in Eastern Massachusetts, for the year 1882.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Lake Cochituate	5.93	3.96	2.76	1.89	4.73	1.87	3.49	1.14	9.20	2.22	0.93	2.17	40.29
Framingham	5.58	4.42	2.95	1.90	5.32	2.14	1.49	1.67	8.45	2.13	1.61	2.43	40.09
Southboro'	5.845	4.50	2.665	1.525	4.885	1.12	1.845	1.825	9.045	2.135	0.805	2.18	38.375
Marlboro'	5.82	4.56	2.91	1.785	5.745	1.87	2.26	1.01	9.63	2.275	1.14	2.10	41.105
Westboro'	6.55	5.20	2.36	1.84	5.10	1.46	1.62	1.37	8.42	1.77	1.12	2.35	39.16
Hopkinton	5.96	4.05	2.36	2.07	4.28	1.73	1.63	2.46	8.16	2.06	1.06	2.42	38.24
Chestnut-Hill Reservoir	4.53	3.74	2.80	2.40	5.34	1.41	2.89	1.28	9.18	1.87	1.17	1.88	38.49
Cambridge Observatory	4.15	6.40	2.75	2.26	4.95	1.97	2.35	1.61	8.28	2.01	1.68	2.16	40.57
Mystic Lake	5.50	4.64	2.45	2.09	4.58	2.12	2.39	1.08	8.25	1.94	1.70	2.20	38.94
Mystic Station	5.59	4.72	2.53	2.13	4.58	2.06	2.29	1.05	8.45	1.94	1.79	2.26	39.39
Mystic Engine-House	4.95	3.62	2.63	2.05	4.33	2.51	1.81	1.28	9.10	1.93	1.09	2.09	37.39
Waltham (Boston Manufacturing Co.)	3.60	3.04	2.92	1.84	4.52	1.86	1.76	0.36	8.64	2.20	1.04	1.24	33.02
Lowell (Locks & Canals Co.)	4.527	5.773	3.019	1.674	4.904	2.789	1.677	0.984	7.313	2.312	1.011	2.027	38.01
Lowell (Merrimack Manufacturing Co.)	4.64	4.44	3.20	1.88	5.33	3.58	1.72	0.88	8.40	2.48	1.54	2.82	40.91
Boston (Superintendent of Sewers)	4.66	6.35	3.57	2.61	5.80	1.74	4.01	1.69	11.47	2.30	1.74	2.43	48.42
Boston (U. S. Signal Service)	3.68	4.77	3.35	2.50	6.05	1.03	3.91	1.46	10.93	2.29	1.20	2.65	43.82
Averages	5.09	4.64	2.83	2.03	5.03	1.95	2.32	1.32	8.93	2.11	1.29	2.22	39.76

Table showing the average monthly and yearly Heights above tide marsh level of the Water in the Lakes and Reservoirs of the Boston Water Works.

MONTHS.	Reservoir No. 1. Flash-boards 159.29.		Reservoir No. 2. Flash-boards 167.12.		Reservoir No. 3. Stone-crest 175.24.		Farm Pond. High water 149.25.		Lake Cochituate. High water 134.36.		Chestnut-Hill Reservoir. High water 124.00.		Brookline Reservoir. High water 124.00.		Parker-Hill Reservoir. High water 219.00.		Mystic Lake. High water 7.00.		Mystic Reservoir. High water 147.00.	
	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.	1881.	1882.
January . .	156.69	155.57	158.48	166.51	165.51	175.53	148.96	146.14	125.87	128.56	123.19	123.69	122.37	123.40	218.11	217.39	0.56	6.09	146.87	146.91
February . .	155.45	158.09	162.34	165.05	169.34	174.20	149.16	145.80	127.55	131.51	123.51	123.23	122.25	122.91	217.95	217.65	3.48	5.67	147.14	146.91
March . . .	157.13	158.10	166.42	166.14	175.05	175.28	149.31	145.62	132.85	133.50	123.71	123.66	122.95	123.35	217.39	218.31	6.04	5.73	146.88	146.93
April	157.32	157.93	166.84	167.02	174.57	175.42	149.29	146.99	133.56	133.65	123.64	123.55	. . .	123.47	217.08	217.93	6.51	6.34	146.64	146.89
May	159.02	159.48	167.21	167.37	175.46	175.51	149.23	149.22	134.06	134.00	123.28	123.87	. . .	123.63	217.95	217.54	6.61	6.51	146.63	146.82
June	159.55	159.40	167.20	167.26	175.54	175.36	149.26	149.21	134.22	133.92	123.29	123.77	119.80	123.50	218.26	218.04	6.67	6.65	146.65	146.53
July	159.25	158.74	161.22	161.95	174.73	175.02	149.17	149.21	133.96	132.47	123.28	123.99	121.70	123.67	217.86	218.39	6.65	6.19	146.70	146.75
August	158.77	155.22	159.34	154.57	171.19	172.58	149.15	148.90	132.91	130.97	123.54	123.81	123.16	123.47	217.42	218.17	6.19	4.34	146.70	146.87
September . .	158.04	154.78	160.00	155.13	164.99	168.66	149.16	148.93	131.73	129.20	123.57	123.41	123.16	123.10	217.75	217.11	5.07	3.01	146.66	146.83
October	157.00	154.88	161.56	161.44	160.20	170.68	149.20	149.22	130.13	128.11	122.30	123.66	122.49	123.37	217.47	217.25	3.64	4.76	146.70	146.81
November . . .	156.89	154.47	164.96	157.16	162.45	172.58	146.42	149.22	128.21	127.17	123.79	124.02	121.30	123.70	218.38	217.69	3.01	5.54	147.00	146.74
December . . .	154.78	154.27	167.28	162.36	169.51	169.23	145.06	149.19	127.50	126.42	123.35	123.96	122.63	123.61	218.09	217.93	3.64	5.48	147.06	146.90
Yearly ave.	157.49	156.74	163.57	162.66	169.88	173.34	148.61	148.14	131.05	130.79	123.37	123.72	. . .	123.43	217.81	217.78	4.75	5.53	146.80	146.82

MONTH.	1872.	1875.	1876.	1877.	1878.		1879.		1880.		1881.		1882.
	To Lake Cochituate.	To Lake Cochituate.	To Lake Cochituate.	To Lake Cochituate.	To Lake Cochituate.	To Chestnut-Hill Res'r.	To Lake Cochituate.	To Chestnut-Hill Res'r.	To Lake Cochituate.	To Chestnut-Hill Res'r.	To Lake Cochituate.	To Chestnut-Hill Res'r.	To Chestnut-Hill Res'r.
	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.	Gallons.
January		140,400,000	410,300,000	427,200,000				204,000,000	228,400,000	673,600,000		814,800,000	555,000,000
February		517,200,000	491,400,000	353,700,000	4,700,000	148,400,000		272,300,000	11,300,000	604,100,000		680,300,000	975,700,000
March		380,300,000	22,000,000	8,200,000	12,000,000			295,100,000	8,200,000	268,400,000		853,600,000	1,002,300,000
April		265,700,000						117,700,000	161,300,000	348,000,000		810,700,000	781,200,000
May		203,100,000	61,100,000	6,400,000	98,000,000			245,900,000	280,800,000	400,000,000		960,100,000	502,800,000
June		144,300,000		87,500,000	504,100,000			180,800,000	136,700,000	398,600,000		941,700,000	491,800,000
July		343,100,000	149,300,000	2,660,000	177,300,000	118,200,000	333,100,000	322,500,000		378,460,000		911,200,000	646,900,000
August		402,900,000	507,500,000	47,990,000	747,200,000	96,400,000	45,500,000	322,100,000		592,000,000		730,700,000	655,800,000
September			111,800,000	78,400,000	287,300,000	34,900,000	9,300,000	294,600,000		445,500,000		731,500,000	308,900,000
October		158,800,000	380,800,000	882,300,000	661,600,000	168,100,000		234,800,000		434,600,000		429,300,000	570,300,000
November			215,800,000		176,100,000	109,500,000	21,400,000	339,300,000		398,200,000		321,700,000	572,300,000
December			178,300,000			78,000,000	2,000,000	508,200,000		402,100,000	187,600,000	472,100,000	632,200,000
Totals	1,676,600,000	2,555,800,000	2,528,300,000	1,894,350,000	2,668,300,000	753,800,000	411,300,000	3,337,900,000	826,700,000	5,403,500,000	187,600,000	8,657,700,000	7,735,200,000
Total diversion from Sudbury River	1,676,600,000	2,558,800,000	2,528,300,000	1,894,350,000	3,422,100,000		3,749,200,000		6,230,200,000		8,845,300,000		7,735,200,000
Av. daily diversion for whole year	4,581,000	7,002,000	6,908,000	5,190,000	9,376,000		10,272,000		17,022,400		24,233,700		21,192,300

1,676,600,000 Gallons.
Total January 19th to September 17th.

1,676,600,000 Gallons.
Total January 19th to September 17th.

Table showing the Rainfall on the Sudbury-River Water-shed, for year 1882.

1882.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1						0.148			0.027			
2	0.538		1.315		0.012		0.630					
3		0.084	0.006			0.006						
4				0.034		0.247			0.093			
5		1.528	0.006				0.448					
6			0.114			0.022						0.274
7	0.250		0.002	0.184	0.109				0.008		0.004	0.156
8	0.055	0.120				0.002		0.918				
9					0.428	0.056			0.009			
10		0.802	0.62	0.054				0.006				0.138
11	0.616		0.006		0.080	0.163						0.376
12			0.134	0.001					3.162	0.003		
13	0.374	0.107					0.280				0.085	0.588
14	0.008								1.042	1.35		
15					1.804					0.002		
16	0.024		0.02					0.415				
17	0.342	0.307						0.008		0.127	0.432	
18					0.062	0.788						
19	0.144	0.065	0.049		0.016	0.026	0.014			0.566		
20				0.640		0.002			0.05			
21	0.436	1.478	0.046	0.008	1.239							
22		0.055	0.154									0.764
23					0.474							
24						0.108		0.32	4.092	0.026		
25					0.174							
26	0.760		0.006		0.004						0.193	
27	0.082											
28	0.22		0.078	0.876	0.044		0.397					
29				0.027	0.62				0.252		0.433	
30			0.093			0.096			0.006			
31	2.102											
Total . .	5.951	4.546	2.649	1.824	5.066	1.664	1.769	1.667	8.741	2.074	1.147	2.296

Total for the year 39.894 inches.

Being an average of five gauges located at Framingham, Southboro', Marlboro, Westboro', and Hopkinton.

Table showing the Rainfall on Mystic Water-shed for the year 1882.

1882.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1			0.745		0.025	0.02	0.20		0.035		0.02	
2	0.72		0.39			0.075	0.50					
3		0.06										
4				0.04		0.42			0.02			
5		1.60	0.035				0.04					
6			0.11				0.415					0.27
7	0.26			0.045							0.05	0.11
8	0.06	0.02						0.245	0.825			
9					0.37				0.02			
10		0.875	0.55	0.03								0.25
11	0.48		0.025		0.09	0.205	0.03					0.225
12			0.085						2.39			
13	0.275	0.03			0.17				0.23		0.035	0.695
14					0.325		0.495		0.565	1.08		
15					0.895							
16			0.04		0.27	0.195		0.50				
17	0.29	0.35								0.12		
18										0.02	0.42	
19	0.085	0.05			0.18	0.885	0.66			0.50		
20			0.04	0.87	0.045	0.29				0.21		
21	0.47	1.605			1.005				0.14			
22		0.04	0.13		0.065				0.895			0.68
23					0.03				2.225			
24					0.615				0.56	0.01		
25								0.32	0.055			
26	0.635				0.10				0.06			
27	0.34		0.175								0.35	
28	0.27	0.05		1.125	0.02							
29					0.375				0.235			
30			0.165						0.095		0.82	
31	1.66											
Total .	5.545	4.68	2.49	2.11	4.58	2.09	2.34	1.065	8.35	1.94	1.745	2.23

Total for the year 39.165 inches.

Being an average of two gauges, located at Mystic Lake and Mystic Station.

WATER REGISTRAR'S REPORT.

OFFICE OF THE WATER REGISTRAR,
CITY HALL, BOSTON, May 1, 1883.

L. R. CUTTER, Esq., *Chairman Boston Water Board*:—

SIR,—In compliance with the requirements of the ordinance the Water Registrar herewith submits his annual report for the year ending April 30, 1883:—

The total number of water-takers now entered for the year 1883 is 52,817, being a decrease of 838 from last year. *This decrease is owing to the application of meters to buildings occupied by several tenants who formerly paid separate bills, and are now charged in one account to the owner or lessee of the building.*

The total number of cases where the water has been turned off for non-payment of rates is 593. Of this number 486 have been turned on, leaving a balance of 107 still remaining off.

The total revenue from the sale of water during the financial year of 1882-3 is . . .	\$1,050,642 63
Received from sale of water furnished in previous years	89,378 25
Received for turning on water in cases where it had been turned off for non-payment of rates	978 00
Received for summonses	1,639 00
	\$1,142,637 88

The estimated income from the sale of water on account of the year 1883-4 is . . .	\$1,060,000 00
From sale of water furnished in previous years and collected in 1883-4 . . .	90,000 00
From off and on water and summonses . . .	4,000 00
	\$1,154,000 00

The expenditures of my department during the year 1882 have been \$29,485.01.

The total number of meters now applied to the premises of water-takers is 2,245.

Of this number 1,555 are $\frac{5}{8}$ -inch, 45 $\frac{3}{4}$ -inch, 525 1-inch, 15 $1\frac{1}{2}$ -inch, 72 2-inch, 21 3-inch, and 12 4-inch, size. There are also 182 elevators and 36 motors with indicators attached to register the quantity of water consumed.

There are fifty-three drinking-fountains established within the city limits. Those marked * are arranged for a continuous flow of water. The balance have automatic fixtures, operating the flow of water when required.

City Proper.

* Boston Common (6).

North square.

Washington street, opposite Blackstone square.

Atlantic avenue, junction Commercial street.

“ “ head of Rowe's wharf.

Atlantic avenue, near N.Y. & N.E. R.R. freight-house.

Haymarket square.

Causeway street, at Boston and Lowell R.R. depot.

“ “ junction Merrimac street.

Charles street, opposite the Jail.

“ “ between Boylston and Beacon streets.

“ “ near Boylston street.

Beacon street, near Charles street.

Tremont street, near Clarendon street.

Albany street, opposite water-works, pipe-yard.

Mt. Washington avenue, near the drawbridge.

East Boston.

Maverick square.

Central square.

Bennington street, junction Chelsea street.

South Boston.

Foundry street, opposite First street.

Fourth street, near Foundry street.

“ “ junction Emerson street.

“ “ corner of Q street.

Telegraph Hill.

Sixth street, near P street.

Washington Village, junction Dorchester avenue and Dorchester street.

Roxbury.

Albany street, junction Dearborn street.
Beacon street, junction Brookline avenue.
* Eliot square.
Eustis street, near Washington street.
Heath street, near Tremont street.
Pyncheon street, near Roxbury street.
Tremont street, junction Cabot street.

West Roxbury.

Centre street, junction Day and Perkins street.
Centre and LaGrange street, West Roxbury village.
Morton street, junction South street.
Roslindale, Taft's Hotel.
Washington street, near Williams street.

Dorchester.

Commercial street, opposite Beach street.
Neponset avenue, corner Walnut street.
Upham's Corner.
Glover's Corner.
Grove Hall.

Brighton.

Barry's Corner.
Market street, Cattle-fair Hotel.
Union square.
Western avenue, Charles-river Hotel.
Washington street, Oak square.

There are nineteen stand-pipes now located for street-sprinkling purposes, as follows : —

Tremont street and Hammond park.
Clay street, corner Tremont street.
Eliot square.
Brookline avenue, corner Longwood avenue.
St. James street, corner Warren street.
Blue Hill avenue, between Waverley and Clifford streets.
Warren street, corner Gaston street.
Egleston square, corner Walnut avenue.
Upham's Corner.
Field's Corner.
Dorchester avenue, near Savin Hill avenue.

Dorchester avenue, at Old Boston line.

Beach street, Harrison square.

Union square, Brighton.

Washington street, corner Winship street, Brighton.

Chestnut Hill avenue, corner of South street.

Dudley street, opposite Harvard avenue.

Paris street, corner of Meridian street.

Corner Munroe, Walnut avenue.

Statement showing the number of houses, stores, steam-engines, etc., in the City of Boston, supplied with water to the 1st of January, 1883, with the amount of water-rates received for 1882 :—

34,590 Dwelling-houses (53,365 families) .	\$499,720 61
1,772 Model-houses (8,554 tenements) .	46,633 57
22 Boarding-houses	1,156 00
9 Lodging-houses	278 00
12 Hotels	639 67
5,761 Stores and shops	57,964 97
275 Buildings	12,498 84
854 Offices	7,414 40
47 Public halls	662 00
5 Theatres	139 00
30 Private schools	572 75
26 Asylums	1,579 00
6 Hospitals	300 00
149 Churches	2,290 78
9 Market-houses	740 00
69 Greenhouses	1,621 42
59 Cellars	373 00
167 Restaurants	4,535 10
981 Bars and saloons	13,651 24
* 10 Club-houses	266 71
24 Photographers	618 92
1 Gymnasium	50 00
1 Laboratory	50 00
46 Packing-houses	1,491 50
2,006 Stables	14,204 65
33 Factories	1,107 41
3 Bleacheries	55 00
143 Bakeries	1,736 04
11 Freight-houses	232 00
4 Gasometers	75 06
3 Cemeteries	30 00
3 Bath-houses	50 00
10 Armories	166 75

Amount carried forward,

\$672,904 39

<i>Amount brought forward,</i>	\$672,904 39
99 Laundries	1,763 33
24 Railroad-stations	387 00
2 Ice companies, washing-ice	20 00
5 Ship-yards	101 00
4 Pumping-engines	40 00
2 Dry-docks and engines	60 00
185 Shops and engines	9,693 86
13 Factories and engines	873 83
4 Printing and engines	133 50
36 Stationery engines	1,904 63
62 Discharging and pile-drivng engines,	722 00
2,181 Hand-hose	13,400 00
7 Fountains	100 00
24 Tumbler-washers	360 00
85 Beer water-pressures	425 00
11 Aquariums	80 00
12 Motors	60 00
Steam and tug boats	10,630 08
Street-sprinkling	1,864 19
Building purposes	3,384 14
Filling gasometers	744 78
Metered water (9 months)	239,215 00
Miscellaneous	109 00
1 Police station	22 50
Steamer "Protector"	100 00
48 Fire-engines, hose, and hook and lad- der houses	985 00
7 Chemical engine-houses	105 00
4,094 Fire-hydrants	81,880 00
129 Reservoirs	2,580 00
Steamer "W. M. Flanders"	170 00
Repair-shop (B.F.D.)	35 00
Public schools	2,435 00
Paving Department	252 75
Common Sewer Department	200 00
Lamp Department	20 00
Committee on Common and Squares,	410 00
Committee on Bridges	80 00
District Court-House	23 50
Branch Libraries	81 00
Health Department	1,565 00
Directors of Public Institutions	187 00
Steamer "J. P. Bradlee"	200 00
Steamer "Samuel Little"	100 00
Total	\$1,050,407 48

The following table exhibits the yearly increase of water-takers since January 1, 1850 :—

				Takers.	Increase.
From January 1, 1850, to January 1, 1851,				13,463	
"	"	1851,	"	1852, 16,076	2,613
"	"	1852,	"	1853, 16,862	786
"	"	1853,	"	1854, 18,110	1,308
"	"	1854,	"	1855, 19,193	1,023
"	"	1855,	"	1856, 19,998	805
"	"	1856,	"	1857, 20,806	808
"	"	1857,	"	1858, 21,602	796
"	"	1858,	"	1859, 22,414	812
"	"	1859,	"	1860, 23,271	857
"	"	1860,	"	1861, 24,316	1,045
"	"	1861,	"	1862, 25,486	1,170
"	"	1862,	"	1863, 26,289	803
"	"	1863,	"	1864, 26,851	562
"	"	1864,	"	1865, 27,046	195
"	"	1865,	"	1866, 27,489	443
"	"	1866,	"	1867, 27,754	265
"	"	1867,	"	1868, 28,104	350
"	"	1868,	"	1869, 29,738	1,634
"	"	1869,	"	1870, 31,500	1,762
"	"	1870,	"	1871, 36,132	4,632
"	"	1871,	"	1872, 38,716	2,584
"	"	1872,	"	1873, 40,688	1,972
"	"	1873,	"	1874, 42,345	1,657
"	"	1874,	"	1875, 44,676	2,331
"	"	1875,	"	1876, 46,885	2,209
"	"	1876,	"	1877, 48,328	1,443
"	"	1877,	"	1878, 49,970	1,642
"	"	1878,	"	1879, 51,523	1,553
"	"	1879,	"	1880, 52,268	745
"	"	1880,	"	1881, 53,254	986
"	"	1881,	"	1882, 53,655	401
"	"	1882,	"	1883, 52,817	

The following table exhibits the yearly revenue from the sale of Cochituate water since its introduction into the city, October 25, 1848 :—

Received by Water Commissioners, as per				
Auditor's Report in 1848				\$972 81
From January 1, 1849, to January 1, 1850 .				71,657 79
"	"	1850,	" 1851 .	99,025 45
"	"	1851,	" 1852 .	161,052 85

From	January,	1852,	to	January 1,	1853 .	179,567	39
"	"	1853,	"	1854 .	196,352	32	
"	"	1854,	"	1855 .	217,007	51	
"	"	1855,	"	1856 .	266,302	77	
"	"	1856,	"	1857 .	282,651	84	
"	"	1857,	"	1858 .	289,328	83	
"	"	1858,	"	1859 .	302,409	73	
"	"	1859,	"	1860 .	314,808	97	
"	"	1860,	"	1861 .	334,544	86	
"	"	1861,	"	1862 .	365,323	96	
"	"	1862,	"	1863 .	373,922	33	
"	"	1863,	"	1864 .	394,506	25	
"	"	1864,	"	1865 .	430,710	76	
"	"	1865,	"	1866 .	450,341	48	
"	"	1866,	"	1867 .	486,538	25	
"	"	1867,	"	1868 .	522,130	93	
"	"	1868,	"	1869 .	553,744	88	
"	"	1869,	"	1870 .	597,328	55	
"	"	1870,	"	1871 .	708,783	68	
"	"	1871,	"	1872 .	774,445	70	
"	"	1872,	"	1873 .	862,704	08	
"	"	1873,	"	1874 .	917,415	92	
"	"	1874,	"	1875 .	977,020	48	
"	"	1875,	"	1876 .	1,005,120	94	
"	"	1876,	"	1877 .	1,029,643	70	
"	"	1877,	"	1878 .	1,015,562	89	
"	"	1878,	"	1879 .	1,010,584	30	
"	"	1879,	"	1880 .	1,025,803	14	
"	"	1880,	"	1881 .	1,039,896	17	
"	"	1881,	"	1882 .	1,087,528	49	
"	"	1882,	"	1883 .	1,127,982	32	
"	"	1883,	to	May 1,	1883 .	846,261	55

The following table exhibits the class of premises to which meters are attached, together with the amount of revenue received during the year:—

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
Revere House.....	Hotel ..	3	..	..	..	..	..	3	1	1,111,977	\$1,667 96
American House.....	" ..	2	1	..	1	..	..	4	..	796,533	1,194 78
Parker House	" ..	1	4	..	..	..	..	5	..	1,485,368	2,228 04
U.S. Hotel.....	" ..	3	..	..	..	..	..	3	2	1,659,750	2,489 61
Tremont House	" ..	2	3	..	..	..	..	5	..	1,094,253	1,641 37
Young's Hotel.....	" ..	2	2	..	..	..	..	4	1	2,230,457	3,345 66
Adams House	" ..	2	1	..	..	..	..	3	1	.....	Rebuilding.
Hotel Berkeley.....	" ..	1	..	1	..	..	..	2	..	609,990	914 97
Albion Building	" ..	1	..	..	..	..	..	1	..	195,345	293 00
Hotel Pelham	" ..	1	3	..	..	..	..	4	..	390,537	585 80
Hotel Boylston.....	" ..	1	1	..	..	..	..	2	1	779,931	1,169 88
La Grange House....	" ..	1	1	..	..	..	..	2	..	68,344	102 51
St. Cloud	" ..	2	..	..	..	..	..	2	2	235,813	353 71
Hotel Clarendon.....	" ..	1	..	..	..	..	..	1	1	282,493	423 73
Seaver House	" ..	1	..	..	..	..	..	1	..	57,597	86 38
Evans House	" ..	2	..	..	..	..	..	2	..	72,180	108 26
Park-square Hotel...	" ..	1	..	..	..	..	..	1	..	35,880	53 80
Hotel Kempton.....	" ..	1	1	..	..	..	..	2	1	269,630	404 43
Hotel Hamilton	" ..	1	1	..	..	..	..	2	1	233,541	350 30
Hotel Vendome	" ..	..	..	..	..	..	1	1	2	2,004,900	3,007 34
Coolidge House	" ..	5	..	..	..	..	..	5	2	355,809	533 69
Hancock House	" ..	1	..	..	..	..	..	1	..	5,871	8 80
Merrimac House.....	" ..	1	..	..	..	..	..	1	..	29,455	44 16
Stanley House.....	" ..	2	..	..	..	..	..	2	..	65,865	98 77
<i>Amount car'd forw'd</i> .....	.....	..	..	..	..	..	..	..	..	14,071,519	\$21,106 95

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	14,071,519	\$21,106 95
International Hotel ..	Hotel ..	..	1	..	..	..	..	1	1	370,236	555 34
Hotel Alexander.....	" ..	..	1	..	..	..	..	1	1	149,151	223 71
Hotel Brunswick	" ..	..	3	..	..	..	..	3	..	1,099,001	1,648 49
Park's Hotel	" ..	2	..	..	..	..	..	2	..	76,962	115 42
Derby House.....	" ..	3	..	..	..	..	..	3	..	68,122	102 16
City Hotel	" ..	1	..	..	..	..	..	1	..	30,560	45 84
Hotel Albemarle.....	" ..	..	1	..	..	..	..	1	..	174,405	261 59
Ashland House	" ..	..	1	..	..	..	..	1	..	59,996	89 99
Hotel Columbus	" ..	..	1	..	..	..	..	1	1	390,804	586 19
Hotel Glover.....	" ..	..	1	..	..	..	..	1	2	101,868	152 79
Merchants' Hotel	" ..	1	..	..	..	..	..	1	..	48,589	72 87
M. J. Flatley	" ..	1	..	..	..	..	..	1	..	19,217	28 81
New England House,	" ..	..	1	..	..	..	..	1	..	119,423	179 11
Winthrop House.....	" ..	1	..	..	..	..	..	1	..	57,720	86 57
Dooley's Hotel	" ..	1	..	..	..	..	..	1	..	8,775	13 15
Falmouth House.....	" ..	2	..	..	..	..	..	2	1	184,898	277 32
Job A. Turner	" ..	..	1	..	..	..	..	1	..	68,847	103 26
Milliken House.....	" ..	3	..	..	..	..	..	3	..	46,548	69 81
Sherman House	" ..	1	2	..	..	..	..	3	..	319,346	479 01
Everett House.....	" ..	..	1	..	..	..	..	1	..	23,440	35 16
Metropolitan House ..	" ..	..	2	..	..	..	..	2	..	213,924	320 87
Commonwealth Hotel,	" ..	..	1	..	..	..	..	1	1	443,696	665 53
St. James Hotel	" ..	..	3	..	..	..	..	3	..	246,383	369 57
Massachusetts House,	" ..	1	..	..	..	..	..	1	..	27,786	41 66
Bay State House.....	" ..	1	1	..	..	..	..	2	..	84,705	127 04
Mariner's House.....	" ..	1	..	..	..	..	..	1	..	44,124	66 17
<i>Amounts car'd forw'd,</i>		..	..	..	..	..	..	..	..	18,550,045	\$27,824 38

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't for'wd.</i>	.....	..	..	..	..	..	..	..	..	18,550,045	\$27,824 38
St. Leonard's Hotel..	Hotel	..	..	..	..	1	..	..	1	..	1,480 2 22
Arlington House.....	"	..	2	..	..	..	..	2	..	49,258	73 88
Robertson House	"	..	2	..	..	..	..	2	..	97,641	146 45
Boston Hotel.....	"	..	2	..	..	..	..	2	..	53,569	80 33
Creighton House.....	"	..	2	1	..	..	..	3	2	780,486	1,170 72
Van Rensselaer	"	..	..	2	..	..	..	2	..	102,499	153 73
Quincy House.....	"	..	5	1	..	..	..	6	..	639,553	959 30
R. Marston & Co.....	"	..	1	..	..	..	..	1	..	245,398	368 08
Crawford House	"	..	4	1	..	..	..	5	..	596,181	894 25
Pavilion House	"	..	..	1	..	..	..	1	..	113,981	170 96
Norfolk House.....	"	..	1	..	..	..	..	1	..	133,126	199 68
Hampton House	"	..	..	1	..	..	..	1	..	199,621	299 40
Hotel Agassiz.....	"	..	..	1	..	..	..	1	2	361,958	542 93
Mason House.....	"	..	1	..	..	..	..	1	..	25,082	[37 61
Albany House.....	"	..	..	1	..	..	..	1	..	50,846	76 25
Cattle-Fair Hotel....	"	..	..	1	..	..	..	1	..	32,012	48 00
Phoenix House.....	"	..	1	..	..	..	..	1	..	24,251	36 36
Hotel Huntington....	"	..	..	1	..	..	..	1	..	175,119	262 66
Hotel Cluny.....	"	..	..	1	..	..	..	1	3	444,041	666 05
Ford's Hotel	"	..	1	..	..	..	..	1	..	46,773	70 14
John D. Miller.....	"	..	2	..	..	..	..	2	..	15,967	23 94
Hotel Bellevue	"	..	1	2	..	..	..	3	..	295,721	443 56
New Marlboro' Hotel,	"	..	3	..	..	..	..	3	..	92,055	138 07
Hotel Hoffman	"	..	..	..	2	..	..	2	..	374,340	561 51
Geo. W. Marks & Co.	"	..	1	..	..	..	..	1	..	5,810	8 70
Hotel Bristol.....	"	..	..	2	..	..	..	2	4	491,758	737 62
<i>Amounts car'd for'wd</i>	.....	..	..	..	..	..	..	..	..	23,998,571	\$35,996 78

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>		..	..	..	..	..	..	..	..	23,998,571	\$35,996 78
Albert Brown.....	Hotel...	1	..	..	..	..	..	1	..	56,344	84 50
J. J. Deichert	" ..	1	..	..	..	..	..	1	..	69,183	103 75
Hotel Glendon.....	" ..	..	1	..	..	..	..	1	..	59,190	88 79
Hotel Austin.....	" ..	..	1	..	..	..	..	1	..	28,196	42 29
Hotel Palmerston	" ..	..	1	..	..	..	..	1	1	139,974	209 96
Hotel Exeter.....	" ..	..	1	..	..	..	..	1	1	10,103	15 15
P. Meehan.....	" ..	..	1	..	..	..	..	1	..	1,437	2 15
Hotel Welden.....	" ..	1	..	..	..	..	..	1	..	46,602	69 88
F. E. Magullion.....	" ..	2	..	..	..	..	..	2	..	58,174	87 24
F. F. Bibber	" ..	1	..	..	..	..	..	1	..	17,527	26 27
Old Colony and New- port Railroad Co...	Railroad	3	5	..	2	..	..	10	..	3,573,298	5,359 92
Boston and Albany Railroad Co.....	"	9	6	..	5	..	..	20	1	6,240,507	9,360 67
Boston and Maine Railroad Co.	"	1	3	..	..	..	..	4	..	608,140	912 20
Boston and Lowell Railroad Co.	"	..	2	..	2	..	..	4	1	1,091,550	1,637 32
Fitchburg RailroadCo.	"	..	3	..	..	..	..	3	..	888,950	1,333 39
Eastern Railroad Co..	"	..	3	..	1	..	..	4	..	1,721,636	2,582 42
New York and New England R.R. Co...	"	1	3	..	..	1	4	9	..	4,959,512	7,439 25
Boston and Provi- dence Railroad Co.	"	6	2	..	3	..	..	11	..	2,652,686	3,978 98
Boston, Revere Beach, and Lynn R.R. Co.	"	..	..	..	1	1	..	2	..	902,480	1,353 70
Boston, Winthrop and Pt. Shirley R.R. Co.	"	..	1	..	..	..	..	1	..	29,031	43 53
Boston Gas Light Co.	Gas Co.	2	3	..	2	..	1	8	..	5,635,362	8,453 03
Boston Gas Light Co., Dorchester.....	.....	1	..	..	..	..	1	2	..	235,357	353 02
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	53,023,810	\$79,534 19

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	53,023,810	\$79,534 19
So. Boston Gas L't Co.		1	1	..	..	..	..	2	..	205,734	308 59
E. Boston Gas L't Co.		..	1	..	..	..	..	1	..	270,656	405 98
Roxbury Gas L't Co..		3	1	..	..	..	..	4	..	378,938	568 39
Dorchester Gas L't Co		..	1	..	..	..	..	1	..	147,054	220 56
Jamaica Plain Gas Light Co.		1	..	..	..	..	..	1	..	26,972	40 45
Standard Sugar Refinery		1	..	..	..	1	1	3	..	8,787,690	13,181 52
G. A. Jasper & Co. ..	Refinery	..	1	..	..	..	..	1	..	11,996	17 98
Continental Sugar Refinery		..	..	..	2	..	..	2	..	3,289,293	4,933 92
Bay State Sugar Refinery		..	..	..	2	..	..	2	..	3,821,699	5,732 52
Oxnard Sugar Refinery		..	3	..	..	..	..	3	..	360,655	540 97
Boston Sugar Refinery		..	..	1	..	1	1	3	..	7,469,345	11,204 00
Bay State Iron Co....		..	3	..	2	1	..	6	..	5,201,840	7,802 75
Norway Iron Works .		1	6	..	2	..	..	9	..	6,590,684	9,886 02
G. W. and F. Smith Iron Co.....		2	..	..	..	..	..	2	..	173,075	259 60
Highland Spring Brewery	Brewery	..	1	..	2	..	..	3	..	988,220	1,482 33
Edward Habich.....	"	..	1	..	..	..	..	1	..	624,237	936 34
J. W. Kenney.....	"	..	1	..	..	..	..	1	..	25,767	38 65
J. W. Kenney, Terrace st.	"	1	..	1	..	..	..	2	..	269,481	404 21
Lang & King	"	..	1	..	..	..	..	1	..	63,311	94 96
H. & J. Pfaff	"	..	..	..	1	..	..	1	..	540,530	810 79
Standard Brewery ...	"	..	..	..	1	..	..	1	..	45,307	67 96
A. J. Houghton & Co., Hallock st.....	"	..	1	..	..	..	..	1	..	13,804	20 70
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	92,330,698	\$138,493 38

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	92,330,098	\$138,493 38
A. J. Houghton & Co., Station st.	Brewery	..	1	..	..	..	..	1	..	301,177	451 75
Boylston Brewery ...	"	..	1	..	1	..	..	2	..	584,271	876 38
Gottlieb Burkhardt ..	"	..	1	..	..	..	..	1	..	480,375	720 55
John Roessle:.....	"	..	..	..	1	..	..	1	..	602,330	903 49
Jones, Cook, & Co. ..	"	..	..	..	2	..	..	2	..	2,024,294	3,036 42
Boston Beer Co.....	"	..	2	..	..	..	..	2	..	1,002,421	1,503 61
Conrad Decker.....	"	..	1	..	..	..	..	1	..	194,076	291 10
Suffolk Brewing Co. .	"	..	..	..	2	..	..	2	..	1,169,808	1,754 69
J. K. Souther	"	..	..	..	1	..	..	1	..	207,950	311 92
Elmwood Spring Brewery	"	..	1	..	..	..	..	1	..	171,698	257 53
Vincent & Hathaway.	Sod. wat. factory .	..	1	..	..	..	..	1	..	74,077	111 09
Fairbanks & Neale ..	"	..	1	..	..	..	..	1	..	136,722	205 06
Coburn, Lang, & Co..	"	1	..	..	..	..	..	1	..	5,454	8 18
Comstock, Gove, & Co	"	1	..	..	..	..	..	1	..	43,281	64 90
Fairbanks & Lang ...	"	1	..	..	..	..	..	1	..	30,934	46 39
D. McConologue	Mineral water man'fr .	1	..	..	..	..	..	1	..	109,059	163 57
Isaac Paatt, Jr.....	Building	1	1	..	..	..	..	2	..	132,681	199 01
Wesleyan Association.	"	3	..	..	..	..	..	3	..	44,304	66 44
Tremont Temple	"	1	1	..	..	..	..	2	1	368,137	552 19
Houghton & Dutton..	"	4	..	..	..	..	..	4	..	145,146	217 71
P. McAleer	"	2	..	..	..	..	..	2	..	63,165	94 73
Smith & Porter.....	"	2	..	..	..	..	..	2	..	79,143	118 70
F. A. Dewson.....	"	2	..	..	..	..	..	2	..	173,288	259 91
Boston Journal.....	"	..	2	..	..	..	..	2	..	171,601	257 39
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	100,645,490	\$150,966 09

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	100,645,490	\$150,966 09
Joseph Byers	Building	2	..	..	..	..	..	2	..	122,796	184 18
N.E. Mut. Life Ins. Co., 70 State st.	"	2	..	..	..	..	..	2	..	31,194	46 78
N.E. Mut. Life Ins. Co., Milk st.	"	1	1	..	..	..	..	2	..	175,686	263 52
Horticultural Hall ...	"	..	1	..	..	..	..	1	..	61,479	92 20
Suffolk National B'k.	"	2	1	..	..	..	..	3	..	32,732	49 08
Benjamin Leeds	"	2	..	..	..	..	..	2	..	35,743	53 60
Blackstone Market ..	"	2	..	..	..	..	..	2	..	40,335	60 47
John Rayner heirs ...	"	2	..	..	..	..	..	2	..	53,764	80 62
Hill & Towne	"	2	..	..	..	..	..	2	..	43,915	65 86
Turn Hall	"	..	1	..	..	..	..	1	..	83,026	124 53
B. B. Appleton heirs.	"	1	..	..	..	..	..	1	..	50,452	75 67
R. L. Merriam	"	2	..	..	..	..	..	2	..	25,123	37 66
Peter B. Brigham est.	"	2	..	..	..	..	..	2	..	73,074	109 60
Mrs. Ellen Brooks...	"	1	..	..	..	..	..	1	..	25,071	37 58
Oriental Tea Company	"	1	..	..	..	..	..	1	..	40,865	61 29
S. D. Hicks	"	1	1	..	..	..	..	2	..	397,452	596 16
John Stetson	"	..	1	..	..	..	..	1	..	136,633	204 93
Macullar, Parker, & Co.	"	..	1	..	..	..	..	1	..	52,097	78 14
John F. Mills, 120 Pearl st.	"	1	..	..	..	..	..	1	..	63,527	95 28
Albert Fellner	"	..	1	..	..	..	..	1	..	123,648	185 46
J. I. Brown & Son...	"	..	1	..	..	..	..	1	..	42,787	64 16
Hogg, Brown, & Tay- lor	"	1	1	..	..	..	..	2	1	439,910	659 84
A. Wentworth, 71 Sudbury st.	"	2	..	..	..	..	..	2	..	32,989	49 50
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	102,829,788	\$154,242 20

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	102,829,788	\$154,242 20
William Ropes estate	Building	2	1	..	..	..	..	3	..	340,327	510 48
A. D. Puffer	"	2	..	..	..	..	..	2	..	93,583	140 35
L. Speidel & Co.	"	..	1	..	..	..	..	1	..	77,975	116 95
Grand Lodge of Masons.....	"	2	1	..	..	..	..	3	..	61,106	91 64
Walter Frost est.	"	1	..	..	..	..	..	1	..	18,669	27 99
Henry C. Morse & Co.	"	2	..	..	..	..	..	2	..	68,714	103 05
Mass. Inst. of Tech- nology	"	..	1	..	1	..	..	2	..	278,197	417 29
S. N. Brown, Jr., 147 Tremont st.	"	1	..	..	..	..	..	1	..	119,019	178 52
A. H. Vinton.....	"	1	..	..	..	..	..	1	..	15,980	24 00
A. Stowell, 20-24 Win- ter st.	"	1	..	..	..	..	..	1	..	33,620	50 41
B. F. Bradbury.....	"	1	..	..	..	..	..	1	..	103,013	154 50
Shepard, Norwell, & Co.	"	4	..	..	..	..	..	4	1	70,091	105 12
D. J. Hastings	"	..	1	..	..	..	..	1	..	27,318	40 96
C. U. Cotting, 628 Washington st.	"	5	..	..	..	..	..	5	..	59,029	88 53
W. H. Mann	"	2	..	..	..	..	..	2	..	Vacant	.....
Moulton & Bradley ..	"	1	..	..	..	..	..	1	1	225,915	338 86
Jordan, Marsh, & Co., 450 Washington st.	"	2	3	..	..	..	..	5	..	546,083	819 10
Charles A. Millen ...	"	..	1	..	..	..	..	1	..	119,987	179 97
Stephen H. Bennett heirs	"	2	..	..	..	..	..	2	..	137,129	205 69
W. H. Foster.....	"	1	..	..	..	..	..	1	..	21,730	32 58
Brown & Seavey	"	1	..	..	..	..	..	1	..	18,389	27 57
Franklin Evans.....	"	1	..	..	..	..	..	1	..	53,916	80 86
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	105,319,578	\$157,976 62

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't form'd.</i>		..	..	..	..	..	..	..	..	105,319,578	\$157,976 62
J. Zane & Co.....	Building.	2	..	..	..	..	..	2	..	42,362	63 52
Thayer, Dunham, & Ross	"	1	..	..	..	..	..	1	..	35,149	52 71
Merchants' Exchange.	"	1	1	..	..	..	..	2	1	723,024	1,084 53
H. M. Burr & Co.....	"	2	..	..	..	..	..	2	..	68,722	103 03
J. T. Brown & Co....	"	1	..	..	..	..	..	1	..	29,111	43 66
J. H. Pray & Son....	"	3	1	..	..	..	..	4	..	57,184	85 74
C. F. Hovey & Co....	"	3	1	..	..	..	..	4	..	202,570	303 84
Globe Publishing House	"	2	..	..	..	..	..	2	..	99,747	149 61
Charles Rollins.....	"	..	1	..	..	..	..	1	..	124,181	186 26
Adams Express Co...	"	2	1	..	..	..	..	3	..	64,315	96 45
Brown & Putnam	"	..	1	..	..	..	..	1	..	130,488	195 72
Charles P. Curtis....	"	2	..	..	..	..	..	2	..	262,425	393 63
W. Blenkinsop	"	2	..	..	..	..	..	2	..	40,605	60 90
Boston Gas Light Co.	"	2	..	..	..	..	..	2	..	27,182	40 76
John F. Wilson	"	1	..	..	..	..	..	1	..	43,231	64 83
L. P. Ober.....	"	1	..	..	..	..	..	1	..	67,794	101 68
E. H. Brainard.....	"	..	1	..	..	..	..	1	..	32,226	48 32
T. H. Russell	"	1	..	..	..	..	..	1	..	30,533	45 79
M. L. Read	"	1	..	..	..	..	..	1	..	48,503	72 73
J. Shedd.....	"	1	..	..	..	..	..	1	..	26,290	39 42
J. S. Farlow	"	1	..	..	..	..	..	1	..	62,525	93 77
L. P. Bartlett	"	1	..	..	..	..	..	1	..	57,761	86 63
Young Men's Chris- tian Association ...	"	2	..	..	..	..	..	2	..	67,163	100 73
A. A. Miner	"	1	..	..	..	..	..	1	..	16,030	24 03
Henry F. Miller	"	..	1	..	..	..	..	1	..	67,718	101 55
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	107,746,417	\$161,616 46

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	107,746,417	\$161,616 46
Art Building	Building	..	1	..	..	..	..	1	..	35,295	52 92
Equitable Life Ins. Co.	"	2	1	..	..	..	..	3	..	112,489	168 71
Potter & Watson	"	..	1	..	..	..	..	1	..	177,286	265 91
W. Warren	"	..	1	..	..	..	..	1	..	10,781	16 16
John Simmons estate.	"	..	2	..	..	..	..	2	..	177,066	265 59
Tremont National B'k	"	..	1	..	..	..	..	1	..	37,365	56 02
M. Englehardt	"	..	1	..	..	..	..	1	..	183,243	274 85
I. L. Pratt	"	1	..	..	..	..	..	1	..	3,703	5 55
Stillman & Nicoll	"	1	..	..	..	..	..	1	..	152,510	228 75
R. H. White & Co. . .	"	1	1	..	..	..	..	2	..	382,252	573 36
Young Men's Chris- tian Union	"	1	2	..	..	..	..	3	..	219,295	328 94
Foster's Wharf Co. . .	"	1	..	..	..	..	..	1	..	132,253	198 37
Moses Williams, 18 P. O. Sqr.	"	1	..	..	..	..	..	1	2	526,737	790 09
Deacon House	"	1	..	..	..	..	..	1	..	25,871	38 79
Boston Herald build- ing	"	..	3	..	..	..	..	3	..	446,100	669 14
Loring & Dexter, Trust	"	2	..	..	..	..	..	2	..	93,781	140 66
Commonwealth Build- ing	"	..	1	..	..	..	..	1	..	49,333	73 99
Mutual Life Ins. Co., of N. Y.	"	..	..	..	1	..	..	1	..	184,960	277 43
E. Bangs	"	1	..	..	..	..	..	1	..	7,386	11 06
Jacob Sleeper	"	1	1	..	..	..	..	2	..	51,810	77 71
Liversidge Industrial Inst'n	"	..	1	..	..	..	..	1	..	28,375	42 55
U.S. & C. Express . . .	"	2	..	..	..	..	..	2	..	35,958	53 92
U.S. Custom House . .	"	..	1	..	..	..	..	1	..	52,115	78 15
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	110,872,381	\$166,305 08

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>		..	..	..	..	..	..	..	..	110,872,381	\$166,305 08
H. P. Chandler.....	Building	1	..	..	..	..	..	1	..	28,841	43 26
Howes & Monks.....	"	2	..	..	..	..	..	2	..	44,292	66 42
F. M. Johnson	"	..	2	..	..	..	..	2	..	39,772	59 65
J. A. Laforme.....	"	2	..	..	..	..	..	2	..	84,427	126 62
Robert Codman, 27 Kilby st.....	"	1	..	..	..	..	..	1	..	30,900	46 34
E. D. Goodrich, 7-13 Exchange pl.....	"	1	1	..	..	..	..	2	..	68,870	103 29
Robert Codman, 17-21 Exchange pl.....	"	..	1	..	..	..	..	1	..	33,266	49 88
E. D. Goodrich, 4 Ex- change pl.	"	1	..	..	..	..	..	1	..	17,634	26 44
W. A. Prescott.....	"	2	..	..	..	..	..	2	..	148,688	223 01
Five-Cent Savings Bank.....	"	2	..	..	..	..	..	2	..	123,507	185 24
Joel Goldthwait & Co.	"	2	..	..	..	..	..	2	..	44,581	66 85
Henry A. Gould.....	"	2	..	..	..	..	..	2	..	235,496	353 23
J. M. Sears, 154, 155 Tremont st.....	"	1	..	..	..	..	..	1	..	147,016	220 51
John F. Mills est., 6- 10 Exchange pl....	"	1	..	..	..	..	..	1	1	566,290	849 42
H. & J. Pfaff.....	"	1	..	..	..	..	..	1	2	514,935	772 40
R. E. Apthorp.....	"	..	1	..	..	..	..	1	..	396,759	595 11
State of Massachusetts	"	1	..	..	..	..	..	1	..	68,164	102 23
C. W. Freeland	"	..	1	..	..	..	..	1	..	71,950	107 90
S. N. Brown, Jr., 81- 83 Milk st.....	"	..	1	..	..	..	..	1	..	56,079	84 11
Mass. Ch. Mch.'s Ass'n, Huntington ave. ...	"	..	2	..	1	..	..	3	3	180,926	271 37
Mason Building	"	..	..	1	..	..	..	1	..	125,220	187 82
Leopold Morse	"	..	1	..	..	..	..	1	..	31,981	47 94
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	113,931,975	170,894 12

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	113,931,975	\$170,894 12
A. Wentworth, 71 Sudbury st.	Building	2	..	..	..	..	..	2	..	32,989	49 50
A. Wentworth, 78-82 Sudbury st.	"	2	..	..	..	..	..	2	..	43,007	64 50
Reed's Block.....	"	..	..	..	1	..	..	1	..	478,990	718 48
First National Bank..	"	1	..	..	..	..	..	1	..	58,691	88 01
Studio Building		..	1	..	..	..	..	1	..	94,012	141 00
Boston Post Building.		..	1	..	..	..	..	1	..	129,576	194 35
Traveller Building...		2	1	..	..	..	..	3	..	124,704	187 04
Union Building.....		5	..	..	..	..	..	5	..	341,627	512 43
Wentworth Building .		1	..	..	..	..	..	1	..	52,822	79 21
Rice Building		..	1	..	..	..	..	1	..	196,809	295 20
Carter Building.....		2	..	..	..	..	..	2	..	23,507	35 25
Edmands Building...		1	..	..	..	..	..	1	..	47,958	71 93
Washington Building.		..	..	1	..	..	..	1	..	254,390	381 58
Niles Building.....		1	2	..	..	..	..	3	..	189,872	284 79
Palmer's Building ...		1	..	..	..	..	..	1	..	45,178	67 75
J. Montgomery Sears, 199 Washington st..	Building	2	2	..	..	..	..	4	..	171,103	256 61
J. Montgomery Sears, 45 Arch st.	"	2	..	..	..	..	..	2	..	185,956	278 92
Advertiser Building..		..	1	..	..	..	..	1	..	121,129	181 68
Lawrence Building ..		2	1	..	..	..	..	3	..	86,156	129 31
Mass Char. Mech. Assn., 40 Bedford st.	Building	1	1	..	..	..	..	2	2	225,127	337 68
C. U. Cotting, 8-10 Beacon st.	"	2	..	..	..	..	..	2		32,161	48 23
C. U. Cotting, 431 Washington st.	"	1	1	..	..	..	..	2	..	58,902	88 33
C. U. Cotting, 715 Washington st	"	..	1	..	..	..	..	1	..	70,208	105 28
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	116,996,849	\$175,491 18

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd .</i>	.....	..	..	..	..	..	..	..	..	116,996,849	\$175,491 18
C. U. Cotting, 791 Washington st.....	Building	1	..	..	..	..	..	1	..	63,634	95 44
C. U. Cotting, 801 Washington st.....	"	..	1	..	..	..	..	1	..	75,913	113 85
C. U. Cotting, 5 Hamilton pl.....	"	1	..	..	..	..	..	1	..	7,907	11 85
C. U. Cotting, 6 Hamilton pl.....	"	1	..	..	..	..	..	1	..	8,313	12 45
C. U. Cotting, 7 Hamilton pl.....	"	1	..	..	..	..	..	1	..	9,644	14 45
C. U. Cotting, 11 Hamilton pl.....	"	..	1	..	..	..	..	1	..	65,499	98 23
C. U. Cotting, 98 Milk st.....	"	1	..	..	..	..	..	1	..	121,789	182 67
C. U. Cotting, 100 Milk st.....	"	1	..	..	..	..	..	1	..	115,801	173 69
C. U. Cotting, 9 Tremont st.....	"	1	..	..	..	..	..	1	..	25,036	37 54
W. H. Foster, 33-37 Tremont street....	"	1	..	..	..	..	..	1	..	33,137	49 68
Samuel A. Way, Est.	"	2	..	..	..	..	..	2	..	54,532	81 79
Caroline E. Davis...	"	1	..	..	..	..	..	1	..	43,387	65 07
Clapp & Underhill ...	"	1	..	..	..	..	..	1	..	47,229	70 83
Scranage Bros. & Cook	"	1	..	..	..	..	..	1	..	153,027	229 53
J. P. Tarbell.....	"	1	1	..	..	..	..	2	..	63,601	95 38
D. Atwood & Co.....	"	1	..	..	..	..	..	1	..	35,176	52 76
E. M. McPherson....	"	2	..	..	..	..	..	2	..	110,942	166 41
R. Hollings	"	2	..	..	..	..	..	2	..	29,362	44 03
S. P. Langmaid, Est.	"	2	..	..	..	..	..	2	..	17,041	25 55
L. C. Collamore	"	1	..	..	..	..	..	1	..	28,277	42 40
Isaac Farrington.....	"	1	..	..	..	..	..	1	..	55,470	83 18
<i>Amounts car'd forw'd.</i>	.....	..	..	..	..	..	..	..	..	118,161,566	\$177,237 96

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	118,161,566	\$177,237 96
Mass. Hosp. Life Ins. Co.....	Building	1	..	..	..	..	..	1	..	5,816	8 71
A. L. Haskell & Co..	"	3	..	..	..	..	..	3	..	95,958	143 91
J. Q. Blake	"	1	..	..	..	..	..	1	..	24,587	36 88
Brock, Coy & Co.....	"	1	..	..	..	..	..	1	..	39,192	58 77
Thomas Snow.....	"	1	..	..	..	..	..	1	..	26,417	39 60
Blackstone Nat'l B'k.	"	1	1	..	..	..	..	2	..	117,980	176 95
Boston University ...	"	..	2	..	..	..	..	2	..	314,629	471 93
Seth E. Pecker.....	"	1	..	..	..	..	..	1	..	27,977	41 94
W. H. Thorndike....	"	2	..	..	..	..	..	2	..	50,420	75 63
J. P. Squire	"	1	..	..	..	..	..	1	..	71,873	107 80
Wm. Minot	"	1	1	..	..	..	..	2	..	35,711	53 56
F. W. & H. A. Ames.	"	2	..	..	..	..	..	2	..	26,475	39 69
Chas. F. Adams	"	..	1	..	..	..	..	1	..	92,258	138 37
S. S. Pierce.....	"	1	..	..	..	..	..	1	..	12,065	18 08
H. H. & T. W. Carter.	"	1	..	..	..	..	..	1	..	17,813	26 71
F. Mitchell.....	"	1	..	..	..	..	..	1	..	64,630	96 90
T. D. Allen & Co. ...	"	1	..	..	..	..	..	1	..	8,848	13 26
Moses Williams, 30 Kilby st.....	"	..	1	..	..	..	..	1	..	69,843	104 76
Geo. D. Howe.....	"	1	..	..	..	..	..	1	..	70,400	105 60
Cong'l Publishing House	"	2	..	..	..	..	..	2	..	30,694	46 03
Mercantile Corp'n Co.	"	4	1	..	..	..	..	5	..	158,038	237 04
J. P. Whittier.....	"	8	..	..	..	..	..	8	..	141,776	212 66
B. S. Snow & Co.....	"	2	..	..	..	..	..	2	..	75,005	112 50
O. Nichols	"	1	..	..	..	..	..	1	..	11,324	17 02
F. B. Hayes	"	..	..	..	1	..	..	1	..	13,864	20 79
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	119,765,159	\$179,643 05

Name.	Class.	5.8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	119,765,159	\$179,643 05
W. S. Crosby	Building	1	..	..	..	..	..	1	..	16,286	24 43
C. Brigham	"	..	1	..	..	..	..	1	..	52,637	78 95
Chas. H. Minot.....	"	1	..	..	..	..	..	1	..	4,951	7 42
Isaac Pratt.....	"	2	..	..	..	..	..	2	..	22,616	33 91
Weeks & Potter	"	1	..	..	..	..	..	1	..	14,485	21 72
W. D. Ross.....	"	..	1	..	..	..	..	1	..	2,608	3 91
E. A. White	"	1	2	..	..	..	..	3	..	107,540	161 28
N. J. Bradlee, 2338 Wash'n st.	"	1	..	..	..	..	..	1	..	90,179	135 27
James Guild	"	2	..	..	..	..	..	2	..	28,664	42 99
Rogers' Building	"	..	1	..	..	..	..	1	..	77,216	115 80
H. A. Whitney	"	2	..	..	..	..	..	2	..	118,831	178 23
John Parkman	"	1	..	..	..	..	..	1	..	28,251	42 37
Nevins & Co.....	"	2	..	..	..	..	..	2	..	45,156	67 71
Bright & Co., 115 Chauncy st.....	"	1	..	..	..	..	..	1	..	3,572	5 35
Samuel A. Way Est., 27 Motte st.....	"	2	..	..	..	..	..	2	..	74,874	112 30
Charles Rollins, 219 Washington st.....	"	1	..	..	..	..	..	1	..	35,712	53 55
F. Shimmin	"	1	..	..	..	..	..	1	..	74,957	112 43
W. H. Allen	"	3	..	..	..	..	..	3	..	173,276	259 90
A. Stowell	"	1	..	..	..	..	..	1	..	15,056	22 57
N. J. Bradlee	"	1	1	..	..	..	..	2	..	112,836	169 24
J. J. Soren.....	"	2	..	..	..	..	..	2	..	38,055	57 07
Henry Guild	"	2	..	..	..	..	..	2	..	19,232	28 83
J. A. Hughes.....	"	3	..	..	..	..	..	3	..	86,757	130 13
Geo. H. Williams....	"	1	..	..	..	..	..	1	..	79,163	118 73
<i>Amounts car'd forw'd</i> , ...		..	..	..	..	..	..	..	..	121,088,069	\$181,627 14

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	121,088,069	\$181,627 14
W. H. Milton	Building	1	..	..	..	..	..	1	..	30,841	46 25
D. Townsend.....	"	2	..	..	..	..	..	2	..	52,518	78 76
James White.....	"	1	..	..	..	..	..	1	..	105,524	158 26
W. Gorman.....	"	..	1	..	..	..	..	1	..	166,046	249 05
Harvard College, 59 Franklin st.....	"	2	..	..	..	..	..	2	..	168,658	252 97
N. Bishop.....	"	2	1	..	..	..	..	3	..	246,647	369 95
T. Wigglesworth, 129 Milk st.....	"	1	..	..	..	..	..	1	..	67,161	100 73
Merrill Bros.....	"	1	..	..	..	..	..	1	..	38,166	57 24
C. W. Galloupe	"	1	..	..	..	..	..	1	..	43,839	65 74
W. O. Ross	"	..	1	..	..	..	..	1	..	25,694	38 52
H. A. Finch.....	"	1	..	..	..	..	..	1	..	30,412	45 61
Foster Waterman h'rs	"	1	..	..	..	..	..	1	..	17,991	26 98
H. L. Bowker & Co. .	"	1	..	..	..	..	..	1	..	20,025	30 02
Moses Williams, 15-17 Kilby st.	"	1	..	..	..	..	..	1	..	38,600	57 88
E. D. Goodrich, 50 Kilby st.	"	1	..	..	..	..	..	1	..	15,341	23 00
Moses Williams, 5 Kilby st.	"	1	..	..	..	..	..	1	..	77,964	116 93
G. F. Burkhardt.....	"	..	1	..	..	..	..	1	..	15,272	22 89
W. H. Foster	"	1	..	..	..	..	..	1	..	33,137	49 68
W. S. Butler & Co., 90 Tremont st.	"	1	1	..	..	..	..	2	..	166,204	249 30
T. O. H. P. Burnham	"	1	..	..	..	..	..	1	..	49,982	74 96
W. S. Butler & Co., 96 Tremont st.	"	1	..	..	..	..	..	1	..	49,510	74 25
Quincy Building.....	.....	2	..	..	..	..	..	2	..	44,861	67 27
L. F. Portales.....	Building	2	..	..	..	..	..	2	..	134,740	202 10
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	122,727,202	\$184,085 48

Name.	Class.	5.8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't for'd</i>		..	..	..	..	..	..	..	..	122,727,202	\$184,085 48
J. T. Eldridge, 15 La Grange st.	Building	1	..	..	..	..	..	1	..	29,179	43 76
W. F. Watson.....	"	1	..	..	..	..	..	1	..	9,560	14 32
J. C. Haynes.....	"	1	..	..	..	..	..	1	..	41,640	62 45
William Mills & Co..	"	2	..	..	..	..	..	2	..	71,943	107 91
H. Rogers	"	1	..	..	..	..	..	1	..	40,899	61 33
Messenger, Cahill, & Co.....	"	2	..	..	..	..	..	2	..	29,620	44 42
S. S. Holton	"	1	..	..	..	..	..	1	..	29,239	43 84
F. A. Ludwig	"	1	..	..	..	..	..	1	..	40,566	60 83
George Howe	"	1	..	..	..	..	..	1	..	46,250	69 37
Robert Codman	"	2	..	..	..	..	..	2	..	16,076	24 09
R. Green	"	..	1	..	..	..	..	1	..	40,785	61 17
Jordan, Marsh, & Co. 474 Washington st.	"	2	..	..	..	..	..	2	..	59,553	89 32
R. A. Richards	"	1	..	..	..	..	..	1	..	16,759	25 11
Lang & King	"	1	..	..	..	..	..	1	..	63,311	94 96
J. H. Nichols	"	1	..	..	..	..	..	1	..	19,326	28 98
Crosby Steam Gauge Co.....	"	1	..	..	..	..	..	1	..	105,328	157 97
J. M. Codman.....	"	1	..	..	..	..	..	1	..	80,939	121 38
J. M. Robbins.....	"	1	..	..	..	..	..	1	..	9,222	13 81
S. Cohen	"	1	..	..	..	..	..	1	..	40,022	60 02
S. G. Chase.....	"	1	..	..	..	..	..	1	..	9,502	14 24
Western Union Telegraph Co.....	"	2	..	..	..	..	..	2	..	93,695	140 53
J. T. Eldridge.....	"	2	..	..	..	..	..	2	..	138,411	207 62
Boston Ice Co.	"	1	..	..	..	..	..	1	..	29,748	44 60
H. & L. Chase	"	1	..	..	..	..	..	1	..	33,395	50 08
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	123,822,170	\$185,727 59

Name.	Class.	5.8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	123,822,170	\$185,727 59
G. P. Upham.....	Building	1	..	..	..	..	..	1	..	97,099	145 63
B. F. Dwight.....	"	1	..	..	..	..	..	1	..	32,030	48 04
Thomas W. Watkins.	"	1	..	..	..	..	..	1	..	15,265	22 89
Boston Athenæum...	"	1	..	..	..	..	..	1	..	8,037	12 03
Provident Inst. for Savings.....	"	..	1	..	..	..	..	1	..	21,690	32 52
F. King	"	1	..	..	..	..	..	1	..	16,205	24 30
Ellen Brooks.....	"	..	1	..	..	..	..	1	..	12,391	18 56
William Sohier.....	"	1	..	..	..	..	..	1	..	10,404	15 59
Moses Williams, 64 State st.	"	1	..	..	..	..	..	1	..	35,817	53 71
C. M. Parker.....	"	1	..	..	..	..	..	1	..	13,349	20 01
J. F. Mills, 130 State st.	"	1	..	..	..	..	..	1	..	3,893	5 84
Henry Lee.....	"	1	..	..	..	..	..	1	..	20,580	30 86
D. Lathrop.....	"	1	..	..	..	..	..	1	..	140,279	210 40
George N. Marsh....	"	1	..	..	..	..	..	1	..	32,475	48 70
Page, Harding, & Co.	"	2	..	..	..	..	..	2	..	77,656	116 47
Valentine & Homer..	"	1	..	..	..	..	..	1	..	49,759	74 64
N. D. Whitney.....	"	1	..	..	..	..	..	1	..	28,889	43 32
W. H. Allen	"	1	..	..	..	..	..	1	..	32,298	48 44
Salem Wilder	"	1	..	..	..	..	..	1	..	15,721	23 53
U.S. Court House ...	"	1	..	..	..	..	..	1	..	27,582	41 35
E. Pratt	"	1	..	..	..	..	..	1	..	19,726	29 58
J. Whitney	"	..	1	..	..	..	..	1	..	39,918	59 87
M. F. Goddard.....	"	1	..	..	..	..	..	1	..	7,652	11 48
W. A. Currier.....	"	1	..	..	..	..	..	1	..	20,771	31 14
E. Bangs	"	1	..	..	..	..	..	1	..	19,358	29 03
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	124,621,014	\$186,925 52

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>	.....	..	..	..	..	..	..	..	..	124,621,014	\$186,925 52
William Bogle	Building	..	..	..	..	..	..	2	..	75,158	112 72
A. Mudge & Son	"	2	..	..	..	..	..	2	..	131,435	197 13
C. Atwood	"	2	..	..	..	..	..	2	..	77,496	116 23
George Williams	"	1	..	..	..	..	..	1	..	2,559	3 83
J. & C. A. Noyes	"	1	..	..	..	..	..	1	..	20,806	31 19
N. Wheelock	"	1	..	..	..	..	..	1	..	14,367	21 53
E. Hobart	"	1	..	..	..	..	..	1	..	24,955	37 42
Charles Rollins, 1 Hamilton pl.	"	1	..	..	..	..	..	1	..	23,928	35 88
Colby & Rich	"	1	..	..	..	..	..	1	..	17,185	25 75
Charles Rollins, 11 Montgomery pl.	"	1	..	..	..	..	..	1	..	17,602	26 39
G. W. States	"	1	..	..	..	..	..	1	..	32,301	48 44
E. Cruft	"	1	..	..	..	..	..	1	..	18,115	27 16
Cumner, Jones & Co.	"	2	..	..	..	..	..	2	..	173,956	260 92
Moses Williams, 9 Chauncy st.	"	1	..	..	..	..	..	1	..	95,616	143 41
W. H. Zinn, 53 Tem- ple pl.	"	2	..	..	..	..	..	2	..	44,920	67 37
R. H. Stearns & Co.	"	1	..	..	..	..	..	1	..	49,463	74 18
Bright & Co.	"	1	..	..	..	..	..	1	..	44,050	66 07
J. M. Sears, 18 Chauncy st.	"	1	..	..	..	..	..	1	..	35,158	52 72
C. L. Haley estate ...	"	2	..	..	..	..	..	2	..	71,545	107 30
C. A. Linneman	"	1	..	..	..	..	..	1	..	62,943	94 39
Jordan, Marsh, & Co., 55 Bedford st.	"	..	1	..	..	..	..	1	..	92,791	139 17
E. J. Brown	"	..	1	..	..	..	..	1	..	33,449	50 17
N. Whitney, Est.	"	1	..	..	..	..	..	1	..	26,788	40 17
<i>Amounts car'd forw'd</i>	.....	..	..	..	..	..	..	..	..	125,807,600	\$188,705 06

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	125,807,600	\$188,705 06
W. F. Watson	Building	1	..	..	..	..	..	1	..	53,096	79 62
Yee Chin & Co.....	"	1	..	..	..	..	..	1	..	14,672	22 00
O. J. Faxon.....	"	1	..	..	..	..	..	1	..	40,971	61 44
F. Evans.....	"	2	..	..	..	..	..	2	..	94,020	141 02
D. R. Whitney	"	1	..	..	..	..	..	1	..	42,106	63 14
T. D. Cook, 23 Avon st.	"	..	1	..	..	..	..	1	..	131,402	197 10
T. D. Cook, 27 Avon st.	"	1	..	..	..	..	..	1	..	18,865	28 28
Charles S. Channing.	"	1	..	..	..	..	..	1	..	13,833	20 74
John Woodsome.....	"	1	..	..	..	..	..	1	..	68,542	102 79
C. H. Ring.....	"	1	..	..	..	..	..	1	..	15,810	23 73
D. W. Foster.....	"	1	..	..	..	..	..	1	..	14,177	21 25
B. S. Codman.....	"	1	..	..	..	..	..	1	..	10,302	15 45
H. L. Hayford.....	"	1	..	..	..	..	..	1	..	24,621	36 91
F. K. Daggett.....	"	1	..	..	..	..	..	1	..	36,948	55 41
W. A. Prescott.....	"	1	..	..	..	..	..	1	..	23,514	35 25
F. C. Lord.....	"	1	..	..	..	..	..	1	..	8,832	13 23
Jona Preston.....	"	1	..	..	..	..	..	1	..	31,235	46 84
Lansing Millis	"	1	..	..	..	..	..	1	..	15,465	23 19
William Sohler.....	"	2	..	..	..	..	..	2	..	62,052	93 06
Chamberlain Rollins .	"	2	..	..	..	..	..	1	..	222,671	333 99
Isaac Fenno & Co., 26 Summer st.....		1	1	..	..	..	..	2	..	127,160	190 73
Grand Trunk R.R. Co.	"	1	..	..	..	..	..	1	..	46,557	69 82
Geo. H. Hughes.....	"	1	..	..	..	..	..	1	..	8,533	12 79
Moses Williams, 352 Washington st.....	"	2	..	..	..	..	..	2	..	73,858	110 77
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	127,006,842	190,503 61

Name.	Class.	5-8 inch,	1 inch,	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>	.....	..	..	..	..	..	..	..	..	127,006,842	\$190,503 61
F. D. Somers.....	Building	1	..	..	..	..	..	1	..	12,908	19 34
J. M. Gibbons.....	"	1	..	..	..	..	..	1	..	20,156	30 22
Louis Ober.....	"	1	..	..	..	..	..	1	..	63,658	95 47
J. D. Stanwood	"	3	..	..	..	..	..	3	..	102,805	154 19
T. Wigglesworth	"	1	..	..	..	..	..	1	..	12,175	18 25
J. H. Thorndike, 542 Washington st.	"	2	..	..	..	..	..	2	..	5,290	7 93
A. C. Baldwin.....	"	1	1	..	..	..	..	2	..	217,109	325 66
Isaac Fenno & Co.....	"	..	1	..	..	..	..	1	..	48,097	72 13
Rhodes, Ripley, & Co.	"	1	..	..	..	..	..	1	..	104,148	156 21
D. W. Williams.....	"	1	..	..	..	..	..	1	..	49,193	73 77
C. J. Paine	"	1	..	..	..	..	..	1	..	39,273	58 89
F. L. Ames	"	2	..	..	..	..	..	2	..	82,367	123 53
J. A. Howard	"	1	..	..	..	..	..	1	..	23,448	35 16
S. H. Cochrane & Co.	"	1	..	..	..	..	..	1	..	168,512	252 75
J. A. Emmons.....	"	1	..	..	..	..	..	1	..	4,978	7 45
T. Metcalf & Co.....	"	1	..	..	..	..	..	1	..	100,907	151 34
A. Williams.....	"	1	..	..	..	..	..	1	..	8,098	12 13
Sullivan Bros. & Libbie	"	1	..	..	..	..	..	1	..	17,061	25 57
Second Universalist Church	"	1	1	..	..	..	..	2	..	74,415	111 61
Z. B. Adams	"	2	..	..	..	..	..	2	..	63,102	94 63
Geo. C. Richardson ..	"	1	1	..	..	..	..	2	..	172,806	259 18
Mace Tisdale.....	"	1	..	..	..	..	..	1	..	23,095	34 63
Faxon Brothers.....	"	2	..	..	..	..	..	2	..	135,672	203 49
C. E. Cook.....	"	1	..	..	..	..	..	1	..	5,713	8 56
P. Ryan	"	2	..	..	..	..	..	2	..	16,131	24 18
<i>Amounts car'd forw'd.</i>	.....	..	..	..	..	..	..	..	..	128,577,959	\$192,859 88

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	128,577,959	\$192,859 88
Fred L. Ames	Building	1	..	..	..	..	..	1	..	91,477	137 21
A. T. Brown	"	1	..	..	..	..	..	1	..	32,827	49 22
A. C. Baldwin	"	2	..	..	..	..	..	2	..	43,093	64 65
L. W. Walker	"	1	..	..	..	..	..	1	..	15,913	23 86
D. C. & W. Rupp	"	2	..	..	..	..	..	2	..	70,816	106 26
Loring, Waterhouse & Co.	"	2	..	..	..	..	..	2	..	17,634	26 44
John I. Brown	"	..	1	..	..	..	..	1	..	91,162	136 72
Mary Boylston	"	1	..	..	..	..	..	1	..	33,654	50 46
J. W. Storer	"	1	..	..	..	..	..	1	..	9,083	13 62
D. Sargent	"	1	..	..	..	..	..	1	..	24,535	36 78
Ingalls & Hatch	"	1	..	..	..	..	..	1	..	76,197	114 28
Old South Church Corp., 290 Washing- ton st.	"	2	..	..	..	..	..	2	..	55,568	83 34
Estes & Lauriat	"	2	..	..	..	..	..	2	..	70,440	105 64
Old South Church Corp., 302 Washing- ton st.	"	1	..	..	..	..	..	1	..	11,203	16 79
George A. Ayer	"	2	..	..	..	..	..	2	..	131,433	197 12
J. M. Robbins	"	3	..	..	..	..	..	3	..	162,879	244 31
Wakefield Rattan Co.	"	1	1	..	..	..	..	2	..	73,816	110 71
William Minot, 45-55 Union st.	"	2	..	..	..	..	..	2	..	36,783	55 17
Geo. W. Simmons & Co.	"	2	..	..	..	..	..	2	..	62,291	93 41
H. B. Rice	"	..	1	..	..	..	..	1	..	89,071	133 60
J. M. Sears, 30 Cen- tral st.	"	1	..	..	..	..	..	1	..	5,205	7 80
Manuf's Nat'l Bank..	"	1	..	..	..	..	..	1	..	38,887	58 32
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	129,821,926	\$194,725 59

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>	.....	..	..	..	..	..	..	..	..	129,821,926	\$194,725 59
Faunceil Hall National Bank.....	Building	..	1	..	..	..	..	1	..	61,227	91 82
R. G. Shaw.....	"	3	..	..	..	..	..	3	..	35,443	53 15
Charles Coburn.....	"	3	..	..	..	..	..	3	..	33,556	50 32
J. G. Shillaber.....	"	2	..	..	..	..	..	2	..	93,680	140 51
Devereaux & Meserve.	"	1	..	..	..	..	..	1	..	25,291	37 92
J. H. Thorndike, 25-28 Tremont Row...	"	2	..	..	..	..	..	2	..	34,000	50 99
J. Harrington.....	"	4	..	..	..	..	..	4	..	19,668	29 48
E. P. White.....	"	1	..	..	..	..	..	1	..	7,172	10 74
G. A. Woodbury....	"	1	..	..	..	..	..	1	..	14,196	21 28
Com'l Wharf Corp'n..	"	1	..	..	..	..	..	1	..	61,459	92 17
Star newspaper.....	"	1	..	..	..	..	..	1	..	132,673	199 00
A. Wentworth, 22-27 Charlestown st. ...	"	1	..	..	..	..	..	1	..	94,715	142 05
W. C. Coolidge.....	"	2	..	..	..	..	..	2	..	69,011	103 50
J. P. Monks Est.	"	2	..	..	..	..	..	2	..	38,340	57 50
H. H. Hunnewell....	"	1	..	..	..	..	..	..	..	18,551	27 82
S. A. Way, 292 Harrison ave.	"	1	..	..	..	..	..	1	..	21,243	31 86
S. N. Brown, 170 Tremont st.	"	1	..	..	..	..	..	1	..	15,125	22 68
Codman Building....	.....	7	..	..	..	..	..	7	..	137,939	206 90
Marlboro' Building ..	.....	..	..	1	..	..	..	1	..	106,840	160 25
Transcript Building..	.....	1	1	..	..	..	..	2	..	83,728	133 08
Merchants' Bank Building .....	.....	1	1	..	..	..	..	2	..	140,208	210 30
Paine Memorial Hall.	.....	..	1	..	..	..	..	1	..	50,569	75 85
Chauncy Hall School.	.....	1	..	..	..	..	..	1	..	18,930	28 38
Harv'd Medical School	.....	1	..	..	..	..	..	1	..	13,98 9	20 97
<i>Amounts car'd forw'd.</i>	.....	..	..	..	..	..	..	..	..	131,154,479	\$196,724 11

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i> ..		..	..	..	..	..	..	..	..	131,154,479	\$196,724 11
Mass. General Hospital		3	4	..	1	..	..	8	..	1,231,790	1,847 66
Adams Nervine Hospital		1	1	..	..	..	..	2	1	409,305	613 95
New England Hospital		..	1	..	..	..	..	1	..	142,842	214 24
Mass. Homœopathic Hospital		1	..	..	..	..	..	1	..	57,620	86 41
Mass. Eye & Ear Infirmary		..	1	..	..	..	..	1	..	119,287	178 90
Notre Dame Academy		1	..	..	..	..	..	1	..	41,605	62 40
House of the Good Shepherd		1	..	..	..	..	..	1	..	70,777	106 16
Church Home		..	1	..	..	..	..	1	..	99,757	149 61
Industrial Home		..	1	..	..	..	..	1	..	135,537	203 29
Somerset Club		2	..	..	..	..	..	2	..	180,903	271 34
Union Club		1	..	..	..	..	..	1	..	89,680	134 50
Temple Club		..	1	..	..	..	..	1	..	43,589	65 36
Central Club		1	..	..	..	..	..	1	..	2,159	3 23
Boston Music Hall		2	..	..	..	..	..	2	..	21,787	32 65
N. E. Conservatory of Music		1	..	..	..	..	..	1	..	13,844	20 75
Park Theatre		1	..	..	..	..	..	1	..	42,027	63 03
State of Massachusetts	State Ho.	..	..	..	1	..	..	1	..	265,980	398 96
The United States. ..	Post Office	..	..	..	1	..	..	1	..	151,820	227 72
Howard Athenæum ..		1	..	..	..	..	..	1	..	37,026	55 54
Boston Theatre		..	2	..	..	..	..	2	..	77,084	115 61
Globe Theatre		3	..	..	..	..	..	3	..	30,247	45 37
Boylston Market		5	..	..	..	..	..	5	..	203,616	305 41
Washington Market ..		2	1	..	..	..	..	3	..	52,963	79 43
<i>Amounts car'd forw'd</i> ..		..	..	..	..	..	..	..	..	134,675,724	\$202,005 63

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	134,675,724	\$202,005 63
Suffolk Market.....		4	..	..	..	..	..	4	..	70,722	106 08
Williams Market		4	..	..	..	..	..	4	..	38,029	57 03
Medical College		..	1	..	..	..	..	1	..	44,192	66 25
Boston College		1	1	..	..	..	..	2	..	158,724	238 07
Mrs. C. C. Annable ..	Board'g.	3	..	..	..	..	..	3	1	251,760	377 63
G. W. Palfrey.....	"	1	..	..	..	..	..	1	..	20,036	30 04
Mrs. W. A. Colson ..	"	2	..	..	..	..	..	2	..	23,813	35 70
James T. Price.....	"	2	..	..	..	..	..	2	..	44,167	66 24
L. A. Smith	"	1	..	..	..	..	..	1	..	31,100	46 65
J. H. Grout	"	1	..	..	..	..	..	1	..	35,716	53 56
George Odin heirs....	"	1	..	..	..	..	..	1	..	16,735	25 09
Mrs. H. L. McClellan	"	2	..	..	..	..	..	2	..	75,225	112 83
A. H. Winchell.....	"	1	..	..	..	..	..	1	..	59,912	89 85
Mrs. C. Cummings...	"	1	..	..	..	..	..	1	..	35,930	53 89
J. P. Robinson & Co.	"	1	1	..	..	..	..	2	..	122,249	183 36
Ruel Philbrook.....	"	2	..	..	..	..	..	2	..	31,813	47 70
G. C. Lord.....	"	2	..	..	..	..	..	2	..	30,970	46 44
J. A. Merrill.....	"	..	1	..	..	..	..	1	..	86,427	129 63
Simon Oakes	"	1	..	..	..	..	..	1	..	20,929	31 38
Mrs. N. F. Chapin...	"	1	..	..	..	..	..	1	..	36,200	54 28
William Evans.....	Model ..	3	..	..	..	..	..	3	..	100,049	150 06
B. S. Evans	"	2	..	..	..	..	..	2	..	17,872	26 79
E. Cutler	"	2	..	..	..	..	..	2	..	12,337	18 49
Michael Doherty	"	4	..	..	..	..	..	4	..	57,968	86 94
Job A. Turner	"	1	..	..	..	..	..	1	..	21,614	32 40
James Chisholm	"	1	..	..	..	..	..	1	..	41,508	62 25
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	136,161,721	\$204,234 26

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>										136,161,721	\$204,234 26
J. Collins.....	Model ..	2						2		76,480	114 70
Mrs. C. A. Moffit....	"	1						1	1	236,616	354 90
Thomas Cantlon.....	"	1						1		10,199	15 28
Lowell Five-Cent-Sav- ings-Bank	"		1					1		190,945	286 40
N. Whiting	"		1					1		57,806	86 70
O. S. Sanders	"	2						2		91,441	137 15
H. H. Fay	"	1						1		24,650	36 96
D. Goodnow	"		1					1		56,926	85 37
E. B. Robbins	"	1						1	1	101,698	152 54
Joseph Byron, Jr. ...	Factory.	1						1		886	1 33
David Wilcox & Co. .	"	3						3		238,596	357 87
J. Morrill, Jr. & Co. .	"	1						1		13,491	20 22
Pearson Cordage Co.	"		1					1		188,161	282 22
J. Morse.....	"	1						1		27,907	41 84
L. Whittaker.....	"	1						1		14,632	21 93
C. Wright & Co.	"	1						1		33,043	49 55
Howard Watch & Clock Co.	"		2					2		105,701	158 54
Roxbury Carpet Co. .	"		1					1		582,508	873 75
D. S. Tibbals.....	"	1						1		33,212	49 80
Putnam Nail Co.	"		3					3		532,875	799 30
William Carleton	"	1	2					3		299,185	448 77
Murphy, Leavens, & Co.....	"	1						1		46,218	69 31
H. M. Richards.....	"		1					1		144,558	216 82
Springer Bros.	"	1						1		32,115	48 17
S. A. Stewart & Co...	"	1						1		12,877	19 30
<i>Amounts car'd forw'd.</i>										139,314,447	\$208,962 98

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	139,314,447	\$208,962 98
Peet Valve Co.....	Factory.	..	1	..	..	..	..	1	..	124,280	186 40
A. W. Bailey	"	2	..	..	..	..	..	2	..	120,193	180 28
C. M. Clapp & Co....	"	..	1	..	..	..	..	1	..	87,560	131 34
W. S. Pratt.....	"	1	..	..	..	..	..	1	..	147,514	221 26
The Diamond Match Co.	"	1	..	..	..	..	..	1	..	13,891	20 81
Smith & Co.....	"	1	..	..	..	..	..	1	..	46,878	70 30
Chickering & Sons...	"	..	3	..	..	..	..	3	..	291,254	436 86
Potter & Wrightington	"	..	..	1	..	..	..	1	..	184,696	277 04
Lockwood Manf. Co..	"	..	1	..	..	..	..	1	..	103,861	155 78
N. E. Smelting Co. ..	"	1	..	..	..	..	..	1	..	2,994	4 48
Mace & Keys.....	"	1	..	..	..	..	..	1	..	28,030	42 03
Bagnall & Loud.....	"	1	..	..	..	..	..	1	..	66,582	99 87
Boston Car Spring Co.	"	..	1	..	..	..	..	1	..	317,160	475 73
A. Folsom & Sons ...	"	..	1	..	..	..	..	1	..	62,718	94 06
Dwinell, Hayward, & Co.....	"	1	..	..	..	..	..	1	..	80,194	120 27
J. M. Cook estate....	"	..	1	..	..	..	..	1	..	246,057	369 07
Hallet & Davis Piano Co.	"	..	1	..	..	..	..	1	..	100,552	150 81
Lyon, Dupuy, & Co. .	"	..	1	..	..	..	..	1	..	18,107	27 13
W. G. Bird	"	1	..	..	..	..	..	1	..	1,388	2 07
E. Hodges & Co.	"	1	..	..	..	..	..	1	..	77,851	116 77
N. E. Piano Co.	"	2	..	..	..	..	..	2	..	32,205	48 29
Morss & Whyte.....	"	1	..	..	..	..	..	1	..	58,554	87 82
N. E. Piano Co., 32 George st.	"	..	1	..	..	..	..	1	..	26,490	39 73
S. D. & H. W. Smith, Montgomery st.	"	..	1	..	..	..	..	1	..	154,977	232 45
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	141,708,433	\$212,553 63

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	141,708,433	\$212,553 63
S. D. & H. W. Smith, Albany street	Factory.	..	1	..	..	..	..	1	..	122,780	184 15
Emerson Piano Co...	"	1	..	..	..	..	..	1	..	113,068	169 58
William Underwood & Co.	"	2	..	..	..	..	..	2	..	79,857	119 77
G. D. Dowes & Co. ..	"	..	1	..	..	..	..	1	..	82,130	123 19
J. D. Williams, 28-30 Avery street.	"	..	1	..	..	..	..	1	..	19,055	28 55
Newton, Morton, & Co.	"	2	..	..	..	..	..	2	..	100,822	151 22
Boston Belting Co. ..	"	..	1	..	..	..	..	1	..	185,361	278 02
Richardson, McKee, & Co.	"	1	..	..	..	..	..	1	..	99,679	149 50
Commercial Manf. Co.	"	..	1	..	..	..	..	1	..	101,727	152 57
Conrad Zeigler.....	"	1	..	..	..	..	..	1	..	27,071	40 60
C. H. Bacon	"	2	..	..	..	..	..	2	..	157,334	235 99
Morton & Chesley ...	"	..	1	..	..	..	..	1	..	199,375	299 05
A. Zeigler.....	"	1	..	..	..	..	..	1	..	72,808	109 19
Cummings & Carlisle.	"	..	1	..	..	..	..	1	..	187,703	281 55
E. W. Dailey.....	"	1	..	..	..	..	..	1	..	5,957	8 93
Coburn, Lang, & Co. .	"	1	..	..	..	..	..	1	..	5,454	8 18
J. W. Tufts.....	"	3	..	..	..	..	..	3	..	201,566	302 33
Pickert, De Butts & Co.	"	1	..	..	..	..	..	1	..	112,026	168 02
Avery, Lactate Co....	"	..	1	..	..	..	..	1	..	11,938	17 90
A. Ceppi & Co.....	"	..	1	..	..	..	..	1	..	184,715	277 06
Walworth Manuf. Co., 67-73 Kilby st.	"	1	..	..	..	..	..	1	..	40,121	60 17
R. Rhodes	"	1	..	..	..	..	..	1	..	110,923	166 37
Suffolk Kindling Wood Co.	"	1	..	..	..	..	..	1	..	54,532	81 79
Amos Cutter	"	2	..	..	..	..	..	2	..	69,149	103 70
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	144,053,584	\$216,071 01

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	144,053,584	\$216,071 01
Whiting & Son	Factory.	3	..	..	..	..	..	3	..	167,368	251 02
Ham & Carter.....	"	1	..	..	..	..	..	1	..	22,243	33 36
J. R. Forbush.....	"	1	..	..	..	..	..	1	..	126,678	190 01
Cushing Process Co..	"	1	..	..	..	..	..	1	..	7,197	10 79
N. E. Felt Roofing Co.	"	1	..	..	..	..	..	1	..	8,883	13 32
Caswell, Livermore, & Co.....	"	1	..	..	..	..	..	1	..	23,004	34 50
A. J. Morse & Son...	"	2	..	..	..	..	..	2	..	44,985	67 47
Seth W. Fowle & Son	"	1	..	..	..	..	..	1	..	2,765	4 13
O. H. Leach	"	1	..	..	..	..	..	1	..	70,260	105 38
Dennison Manufact. Co., 25 Vale st. ...	"	..	1	..	..	..	..	1	..	139,839	209 75
Chadwick Lead Works	"	2	..	..	..	..	..	2	..	141,615	212 41
Henry Mayo & Co....	"	..	2	..	..	..	..	2	..	222,306	333 45
B. F. Sturtevant.....	"	1	..	..	..	..	..	1	..	134,422	201 61
Emerson Piano Co. ..	"	1	..	..	..	..	..	1	..	18,297	27 43
Hallett & Cumston...	"	1	..	..	..	..	..	1	..	111,497	167 23
P. Lally & Co.....	"	..	1	..	..	..	..	1	..	136,462	204 68
S. G. Underhill.....	"	1	..	..	..	..	..	1	..	61,856	92 77
Amer. Molded Collar Co.....	"	1	..	..	..	..	..	1	..	84,553	126 82
Bardwell, Anderson, & Co.	"	..	1	..	..	..	..	1	..	94,419	141 62
N. E. Water Meter Co.....	"	..	1	..	..	..	..	1	..	4,241	6 36
Billings, Clapp, & Co.	"	1	..	..	..	..	..	1	..	50,213	75 30
H. A. Lewis.....	"	1	..	..	..	..	..	1	..	36,434	54 61
Samuel Williams	"	1	..	..	..	..	..	1	..	33,204	49 79
S. G. Lamson	"	1	..	..	..	..	..	1	..	54,825	82 22
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	145,851,150	\$218,767 04

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	145,851,150	\$218,767 04
John Broderick	Factory.	1	..	..	..	..	..	1	..	23,776	35 65
A. H. Miller	"	1	..	..	..	..	..	1	..	53,675	80 50
Forbes Lithograph Manf. Co.	"	..	1	..	..	..	..	1	..	91,835	137 74
Lawrence Wilde & Co.	"	2	..	..	..	..	..	2	..	94,071	141 09
Geo. H. Derby	"	1	..	..	..	..	..	1	..	49,966	74 93
Vose & Sons	"	..	2	..	..	..	..	2	..	19,676	29 50
H. & G. W. Lord	"	..	1	..	..	..	..	1	..	86,966	130 43
J. B. Moors	"	1	..	..	..	..	..	1	..	90,937	136 39
Walter Baker & Co. . . .	"	1	..	..	..	..	..	1	..	27,053	40 57
Suffolk Manf. Co.	"	1	..	..	..	..	..	1	..	94,823	142 22
Union Carpet lining Co.	"	1	..	..	..	..	..	1	..	57,235	85 85
Walworth Manf. Co., First st.	"	1	1	..	..	..	..	2	..	264,048	396 06
Codman & Shurtleff. . .	"	..	1	..	..	..	..	1	..	121,664	182 48
Shreve, Crump, & Low . .	"	1	..	..	..	..	..	1	..	98,267	147 38
Boston Cordage Co. . . .	"	..	..	1	..	..	..	1	..	375,703	563 55
Rice & Hutchings	"	..	1	..	..	..	..	1	..	78,515	117 77
Fiedler, Moeldner, & Co.	"	1	..	..	..	..	..	1	..	57,041	85 55
E. S. Woodbury	"	..	1	..	..	..	..	1	..	52,281	78 42
National Sewing Ma- chine Co.	"	1	..	..	..	..	..	1	..	22,214	33 31
Glidden & Joy	"	1	..	..	..	..	..	1	1	7,735	11 59
Shales & Blumberg . . .	"	1	..	..	..	..	..	1	..	48,670	72 99
Christopher Blake	"	2	..	..	..	..	..	2	..	89,136	133 70
G. H. Dickerman	"	1	..	..	..	..	..	1	..	43,914	65 86
R. Estabrook & Son. . .	"	1	..	..	..	..	..	1	..	54,304	81 45
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	147,854,655	\$221,772 02

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>	Factory	..	..	..	..	..	..	..	..	147,854,655	\$221,772 02
George Gill	"	1	..	..	..	..	..	1	..	32,438	48 64
E. & F. King	"	1	..	..	..	..	..	1	..	59,544	89 30
Josiah B. Mayo	"	..	..	..	1	..	..	1	..	790,740	1,186 09
James A. Frampton ..	"	1	..	..	..	..	..	1	..	35,358	53 03.
H. N. Glover	"	..	1	..	..	..	..	1	..	25,948	38 92
A. K. Young	Mach'ist	2	..	..	..	..	..	2	..	49,280	73 91
Harrison Loring	"	2	1	..	..	..	..	3	..	54,528	81 78
S. A. Woods & Co. ..	"	1	..	..	..	..	..	1	..	93,545	140 31
George F. Blake	"	..	1	..	1	..	..	2	..	172,066	258 09
John Souther & Co. ..	"	1	..	..	..	..	..	1	..	60,483	90 71
Ashcroft Manuf'g Co.	"	1	1	..	..	..	..	2	..	127,991	191 97
L. M. Ham	"	2	..	..	..	..	..	2	..	150,448	225 66
Dennis Crowley	"	1	..	..	..	..	..	1	..	57,125	85 67
L. A. Bigelow	"	..	1	..	..	..	..	1	..	107,561	161 33
William Evans	"	3	1	..	..	..	..	4	..	85,344	128 00
Smith & Lovett	"	1	..	..	..	..	..	1	..	60,810	91 21
Am. Tool and Machine Co.	"	..	1	..	..	..	..	1	..	87,322	130 96
J. Souther & Co.	"	1	..	..	..	..	..	1	..	8,768	13 15
Boston Machine Co. .	"	1	1	..	..	..	..	2	..	210,335	315 47
Hersey Brothers	"	1	..	..	..	..	..	1	..	37,338	56 00
Hersey Bros., Dove st.	"	1	..	..	..	..	..	1	..	19,845	29 77
Hinkley Locomotive Works	"	1	3	..	..	..	..	4	..	974,143	1,461 19
Atlantic Works, Chelsea st.	"	..	1	..	..	..	..	1	..	149,533	224 29
Atlantic Works, Border st.	"	..	..	..	1	..	..	1	..	205,760	308 63
<i>Amounts car'd forw'd.</i>	.....	..	..	..	..	..	..	..	..	151,510,908	\$227,256 10

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amount br't forw'd..</i>		..	..	..	..	..	..	..	..	151,510,908	\$227,256 10
Holmes & Blanchard, Charlestown st.	Mach'ist	..	1	..	..	..	..	1	..	212,811	319 20
H. S. Robinson.....	"	1	..	..	..	..	..	1	..	78,566	117 84
Geo. T. McLaughlin.	"	2	..	..	..	..	..	2	..	89,936	134 90
South Boston Iron Co.	Foundry	2	2	..	1	..	..	5	..	301,088	451 61
James Gurney & Co..	"	1	..	..	..	..	..	1	..	29,810	44 70
William Blake & Co..	"	..	1	..	..	..	..	1	..	107,845	161 75
Whiting Foundry Co.	"	1	..	..	..	..	..	1	..	109,722	164 56
Tremont Foundry Co.	"	1	..	..	..	..	..	1	..	32,507	48 75
Fulton Iron Foundry Co.	"	..	1	..	..	..	..	1	..	1,923	2 88
Charles Roberts	"	..	1	..	..	..	..	1	..	129,746	194 60
Highland Foundry Co.	"	1	..	..	..	..	..	1	..	32,279	48 41
Allston Car Wheel Co.	"	1	..	..	..	..	..	1	..	50,640	75 94
George Miles.....	Boil'r'm.	1	..	..	..	..	..	1	..	31,520	47 26
Downer Kerosene Oil Co.....	Oil W'ks	2	1	..	1	..	..	4	..	1,132,537	1,698 79
S. Jenney & Co.....	"	..	2	..	..	..	..	2	..	134,173	201 24
Maverick Oil Co.	"	..	1	..	..	..	..	1	..	363,550	545 31
Pierce & Canterbury.	"	..	1	..	..	..	..	1	..	156,188	234 27
Beacon Oil Co.	"	..	1	..	..	..	..	1	..	41,586	62 36
Bowker, Torrey, & Co., Bowker st. ...	Marble Works	..	2	..	..	..	..	2	..	851,707	1,277 55
Bowker, Torrey, & Co., Foundry st....	"	1	1	..	..	..	..	2	..	188,981	283 45
Torreys & Co.....	"	2	1	..	..	..	..	3	..	483,518	725 27
C. E. Hall & Co.	"	2	1	..	..	..	..	3	..	522,439	783 64
A. Wentworth & Co..	"	4	..	..	..	..	..	4	..	302,205	453 29
Richard Power & Son,	"	2	..	..	..	..	..	2	..	131,774	197 64
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	157,027,959	\$235,531 31

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	157,027,959	\$235,531 31
Jeremiah Carew.....	Stone Yd	..	1	..	..	..	..	1	..	80,862	121 28
E. F. Meaney	"	2	1	..	..	..	..	3	..	157,018	235 50
Folt & Sullivan.....	"	1	..	..	..	..	..	1	..	37,760	56 62
Geo. F. Chapin & Co.	Vinegar Works	1	..	..	..	..	..	1	..	90,687	136 01
Furber & Graham....	Pickle Factory	..	1	..	..	..	..	1	..	83,987	125 96
W. K. Lewis & Bros.,	"	1	..	..	..	..	..	1	..	78,397	117 58
M. M. Pigott & Son..	"	1	..	..	..	..	..	1	..	18,926	28 36
E. T. Cowdrey & Co.	"	3	..	..	..	..	..	3	..	132,537	198 80
Warner & Freeman..	Salt Wks	1	..	..	..	..	..	1	..	16,618	24 91
Fobes, Hayward, & Co.	Confec'y	1	..	..	..	..	..	1	..	140,938	211 39
Chase & Co.....	"	1	1	..	..	..	..	2	..	272,754	409 11
George J. Raymond..	"	3	..	..	..	..	..	3	..	34,578	51 85
E. M. Messenger.....	Resta'nt	1	..	..	..	..	..	1	..	50,300	75 43
Mrs. G. F. Harrington.	"	1	..	..	..	..	..	1	..	58,195	87 27
Marston & Cunio	"	1	..	..	..	..	..	1	..	99,231	148 84
W. C. Cahoon.....	"	1	..	..	..	..	..	1	..	23,568	35 34
Frost & Dearborn....	"	..	1	..	..	..	..	1	..	73,900	110 84
George Fera	"	1	..	..	..	..	..	1	..	30,656	45 97
D. T. Copeland.....	"	..	1	..	..	..	..	1	..	141,817	212 71
F. E. Weber	"	1	..	..	..	..	..	1	..	47,922	71 88
R. B. Brigham	"	1	1	..	..	..	..	2	..	212,690	319 01
W. F. Bacon.....	"	1	..	..	..	..	..	1	..	16,336	24 49
M. D. O'Keefe	"	1	..	..	..	..	..	1	..	3,681	5 51
Campbell & Coverly .	"	1	..	..	..	..	..	1	..	32,483	48 71
W. G. Foley	"	1	..	..	..	..	..	1	..	27,241	40 86
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	158,991,041	\$228,475 54

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>		..	..	..	..	..	..	..	..	158,991,041	\$238,475 54
Jones & Marshall....	Resta'nt.	..	1	..	..	..	..	1	..	27,300	40 94
O. S. Edgerly.....	"	1	..	..	..	..	..	1	..	67,625	101 42
C. H. Bailey	"	1	..	..	..	..	..	1	..	22,497	33 73
Mary Smith.....	"	1	..	..	..	..	..	1	..	7,997	11 97
Sheplie & Co.	"	2	..	..	..	..	..	3	..	52,615	78 92
Thomas Walton	"	1	..	..	..	..	..	1	..	21,021	31 51
Oriental Coffee House.	"	1	..	..	..	..	..	1	..	5,374	8 06
Jacob Baird.....	"	1	..	..	..	..	..	1	..	6,404	9 60
J. N. Ackerman	"	1	..	..	..	..	..	1	..	12,140	18 20
J. Moritz	"	1	..	..	..	..	..	1	..	47,951	71 90
G. K. Saville.....	"	1	..	..	..	..	..	1	..	25,295	37 93
J. Gallagher	"	1	..	..	..	..	..	1	..	62,866	94 29
A. H. Clark.....	"	1	..	..	..	..	..	1	..	33,433	50 13
Mary O'Donnell.....	"	1	..	..	..	..	..	1	..	43,821	65 71
J. Swallow & Co.....	"	1	..	..	..	..	..	1	..	6,590	9 87
L. E. Stearns	"	1	..	..	..	..	..	1	..	15,524	23 27
S. I. Rankin	"	1	..	..	..	..	..	1	..	54,742	82 11
J. Backus.....	"	2	..	..	..	..	..	2	..	58,217	87 31
E. G. Park.....	"	1	..	..	..	..	..	1	..	46,930	70 39
S. I. Coy	"	1	..	..	..	..	..	1	..	65,776	98 66
Osborn & Dunn.....	"	1	..	..	..	..	..	1	..	30,352	45 51
Sheppard & Cham- berlin	"	1	..	..	..	..	..	1	..	34,116	51 15
Durgin, Park, & Co..	"	2	..	..	..	..	..	2	..	47,538	71 30
Edward Savoy	"	1	..	..	..	..	..	1	..	43,498	65 23
T. H. Smith.....	"	1	..	..	..	..	..	1	..	113,307	169 94
J. M. Learned.....	"	1	..	..	..	..	..	1	..	69,197	103 78
<i>Amounts car'd forw'd,</i>		..	..	..	..	..	..	..	..	160,013,167	\$240,008 37

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>		..	..	..	..	..	..	..	..	160,013,167	\$240,008 37
C. F. Kendall	Resta'nt	1	..	..	..	..	..	1	..	35,084	52 61
Pearson & Macomber.	"	2	..	..	..	..	..	2	..	73,747	110 60
J. H. Blodgett	"	1	..	..	..	..	..	1	..	75,413	113 10
R. R. & J. S. Higgins.	Saloon	2	..	..	..	..	..	2	..	147,744	221 60
Atwood & Bacon	"	1	..	..	..	..	..	1	..	23,880	35 80
Smith & Wright	"	1	..	..	..	..	..	1	..	68,665	102 98
Elias Howe	"	1	..	..	..	..	..	1	..	44,259	66 37
Felton & Son.....	Distill'y	..	2	..	..	..	..	2	..	160,232	240 33
William E. French ..	"	..	1	..	..	..	..	1	..	57,749	86 61
German Am. Co.	Distiller	..	..	1	..	..	..	1	..	33,280	49 90
C. H. Graves.....	Rectifier	1	..	..	..	..	..	1	..	39,844	59 75
Boston Fire Brick & Clay Retort Manuf. Co	Fire Brick.	..	1	..	..	..	..	1	..	183,710	275 55
A. Hale & Co.	Rubber Works.	1	..	..	..	..	..	1	..	104,500	156 73
Standard Rubber Co.	"	1	..	..	..	..	..	1	..	54,784	82 16
Fertilizer Co.	Fertiliz's	1	..	..	..	..	..	1	..	2,490	3 73
Joseph Byron, Jr....	Currier.	1	..	..	..	..	..	1	..	886	1 33
James Gromley.....	"	1	..	..	..	..	..	1	..	24,431	36 62
W. H. Swift & Co....	Fertiliz's	1	1	..	..	..	..	2	..	227,688	341 52
W. L. Bradley.....	"	..	1	..	..	..	..	1	..	500,970	751 43
W. H. Bowker & Co.	"	..	1	..	..	..	..	1	..	75,145	112 69
B. Randall.	"	1	..	..	..	..	..	1	..	54,727	82 08
Boston Dye Wood & Chemical Co.....	Chemic's	..	3	..	..	..	..	3	..	1,632,526	2,448 77
W. H. Whitmore....	Extracts	..	1	..	..	..	..	1	..	87,135	130 70
Preston & Merrill....	.....	..	..	..	1	..	..	1	..	233,220	349 82
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	163,955,276	\$245,921 15

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	163,955,276	\$245,921 15
Quirin & Nelson.....	Tannery	..	1	..	..	..	..	1	..	100,708	151 05
Mullen & Brown....	"	1	..	..	..	..	..	1	..	37,969	56 94
A. J. Foster & Co....	"	1	..	..	..	..	..	1	..	7,968	11 97
J. McCarthy & Co....	"	1	..	..	..	..	..	1	..	11,263	16 89
Boston Forge Co.....		..	1	..	..	..	..	1	..	467,025	700 52
Boston Lead Man'f'g Co.....		1	1	..	..	..	..	2	..	146,390	219 52
A. N. Hardy.....	Pho'pher	1	..	..	..	..	..	1	..	4,421	6 63
Heliotype Printing Co.		1	1	..	..	..	..	2	..	197,903	296 84
Suffolk Glass Co.		1	..	..	..	..	..	1	..	71,407	107 10
New England Pottery.		..	1	..	..	..	..	1	..	50,333	75 48
Simpson's Dry Dock Co.		..	1	..	..	..	..	1	..	86,005	128 98
Union Freight Railway Co.		..	..	..	..	1	..	1	..	194,947	292 41
W. B. Gleason & Co.	Carving	1	..	..	..	..	..	1	..	44,505	66 75
Goepper Bros.	Coopers	1	..	..	..	..	..	1	..	26,856	40 27
Butchers' Slaughtering and Melting Association.....		..	1	..	..	..	..	1	..	476,989	715 47
A. J. Tower.....	Skating Rink..	1	..	..	..	..	..	1	..	31,207	46 80
Metropolitan Railroad Co.	Stables.	19	8	..	..	..	..	27	..	2,006,237	3,009 33
So. Boston Railroad Co.	"	2	3	..	1	..	..	6	..	695,257	1,042 82
Highland Railroad Co.	"	7	..	..	..	..	..	7	..	298,444	447 61
Union Railroad Co., Oak square.....	"	2	1	..	..	..	..	3	..	37,057	55 57
Union Railroad Co., Junc. Wash. and Cambridge sts.	"	..	1	..	..	..	..	1	..	48,606	72 89
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	168,996,773	\$253,482 99

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	168,996,773	\$253,482 99
Draper & Hall.....	Stable	3	..	..	..	..	..	3	1	326,227	489 32
V. R. Bridgham	"	2	..	..	..	..	..	2	..	95,835	143 74
C. H. Foster	"	1	..	..	..	..	..	1	..	38,454	57 66
A. J. Child.....	"	1	..	..	..	..	..	1	..	43,628	65 43
J. C. Bean	"	..	1	..	..	..	..	1	..	83,923	125 88
James W. Hale.....	"	1	..	..	..	..	..	1	..	26,139	39 20
E. A. Batchelder	"	1	..	..	..	..	..	1	..	53,510	80 26
Charles R. Smith....	"	2	..	..	..	..	..	2	..	31,781	47 66
J. Austin Rogers	"	1	..	..	..	..	..	1	..	44,779	67 15
J. D. Packard.....	"	1	..	..	..	..	..	1	..	34,400	51 59
Hutchings & Co.....	"	1	..	..	..	..	..	1	..	34,812	52 20
Blinn, Morrill, & Co..	"	1	..	..	..	..	..	1	..	70,151	105 21
Norway Iron Co.	"	1	..	..	..	..	..	1	..	37,419	56 13
So. Boston Ice Co....	"	1	..	..	..	..	..	1	..	12,207	18 30
Farwell Bros.	"	1	..	..	..	..	..	1	..	10,840	16 25
Richardson & Thomp- son.....	"	1	..	..	..	..	..	1	..	60,556	90 82
Norfolk House Stable.	"	1	..	..	..	..	..	1	..	17,390	26 07
Charles Foster & Co..	"	1	..	..	..	..	..	1	..	32,086	48 11
Joseph Swallow	"	1	..	..	..	..	..	1	..	22,651	33 97
Robert H. Douglass..	"	1	..	..	..	..	..	1	..	60,141	90 19
William K. Porter ...	"	1	..	..	..	..	..	1	..	16,774	25 15
J. P. Barnard, 108 Chestnut street....	"	1	..	..	..	..	..	1	..	55,532	83 28
J. P. Barnard, cor. Brimmer and Chest- nut streets	"	..	1	..	..	..	..	1	..	83,023	124 52
J. P. Barnard, Joy st.	"	3	..	..	..	..	..	3	..	103,401	155 09
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	170,392,437	\$255,576 17

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>		..	..	..	..	..	..	..	..	170,392,437	\$255,576 17
John A. Sawyer	Stable	2	..	..	..	..	..	2	..	83,059	124 57
Clark & Brown, 4 Byron st.....	"	1	..	..	..	..	..	1	..	104,068	156 08
Caldwell Bros.	"	1	..	..	..	..	..	1	..	25,087	37 62
J. E. Maynard.....	"	1	..	..	..	..	..	1	..	113,744	170 60
A. Goss.....	"	1	..	..	..	..	..	1	..	38,291	57 41
Adams Express Co. ..	"	1	..	..	..	..	..	1	..	51,773	77 64
M. Lark	"	1	..	..	..	..	..	1	..	18,554	27 81
John Peters.....	"	1	..	..	..	..	..	1	..	22,164	33 22
J. T. Manson	"	1	..	..	..	..	..	1	..	54,487	81 72
Warner & Tarbell ...	"	2	..	..	..	..	..	2	..	69,252	103 86
George M. King	"	1	..	..	..	..	..	1	..	72,270	108 38
Milo Whitney	"	1	..	..	..	..	..	1	..	29,849	44 76
Daniel Wood.....	"	1	..	..	..	..	..	1	..	46,162	69 22
T. D. Sullivan	"	1	..	..	..	..	..	1	..	38,565	57 84
Ham & Co.	"	2	..	..	..	..	..	2	..	31,561	47 32
C. & E. Snow	"	1	..	..	..	..	..	1	..	39,110	58 66
Daniel Doherty.....	"	1	..	..	..	..	..	1	..	18,145	27 20
C. D. Tutein	"	1	..	..	..	..	..	1	..	41,873	62 79
Johnson & Co.	"	1	..	..	..	..	..	1	..	1,563	2 34
A. P. Wheelock	"	1	..	..	..	..	..	1	..	33,050	49 56
Pillsbury & Co.....	"	1	..	..	..	..	..	1	..	34,707	52 00
C. T. Hayward	"	1	..	..	..	..	..	1	..	9,248	13 87
W. F. Hall.....	"	1	..	..	..	..	..	1	..	2,734	4 09
Edgar Snow.....	"	1	..	..	..	..	..	1	..	5,143	7 71
Herdic Phaeton Co., 260 Hanover street.	"	1	..	..	..	..	..	1	..	86,47	129 65
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	171,463,373	\$257,182 09

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>		..	..	..	..	..	..	..	..	171,463,373	\$257,182 09
Herdie Phaeton Co., 243 Friend street ..	Stable	1	..	..	..	..	..	1	..	112,298	168 42
James Jellison	"	1	..	..	..	..	..	1	..	36,573	54 84
John Miller.....	"	1	..	..	..	..	..	1	..	3,629	5 43
A. B. Winship	"	1	..	..	..	..	..	1	..	41,481	62 26
Harwood & Hackett..	"	1	..	..	..	..	..	1	..	48,581	72 86
H. C. Nims	"	3	..	..	..	..	..	3	..	88,843	133 25
Boston Hotels Coach Co.	"	2	..	..	..	..	..	2	..	186,817	280 21
E. W. Murray, Berke- ley street.....	"	1	..	..	..	..	..	1	..	10,283	15 41
E. W. Murray, Stan- hope street.....	"	1	..	..	..	..	..	1	..	39,126	58 67
Phelps & Perkins....	"	1	..	..	..	..	..	1	..	139,312	208 95
Geo. S. Johnson.....	"	..	1	..	..	..	..	1	..	73,201	109 79
Johnson Bros.....	"	1	..	..	..	..	..	1	..	17,327	25 98
Ward & Hicks.....	"	1	..	..	..	..	..	1	..	26,623	39 92
T. Thaxter & Co.....	"	2	..	..	..	..	..	2	..	41,688	62 52
Miller & Robinson ...	"	3	..	..	..	..	..	3	..	46,352	69 52
Jenness & Glover....	"	3	..	..	..	..	..	3	..	78,002	116 99
Hale and Mossey	"	2	..	..	..	..	..	2	..	51,090	76 62
A. D. Pattee	"	1	..	..	..	..	..	1	..	28,149	42 21
W. H. Emerson	"	1	..	..	..	..	..	1	..	29,182	43 74
Moses Colman & Son.	"	1	..	..	..	..	..	1	..	6,928	10 37
C. T. Walker	"	2	..	..	..	..	..	2	..	17,566	26 33
J. H. Richardson, 174 Portland street	"	1	..	..	..	..	..	2	..	15,332	22 98
Riverside Club Stable.	.....	1	..	..	..	..	..	1	..	17,930	26 89
E. R. Wilson.....	Stable	1	..	..	..	..	..	1	..	27,418	41 11
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	172,647,104	\$258,957 36

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	172,647,104	\$258,957 36
Abbott & Fernald....	Stable	1	..	..	..	..	..	1	..	14,436	21 64
W. E. Bowler.....	"	2	..	..	..	..	..	2	..	51,243	76 91
Hart & Co.	"	1	..	..	..	..	..	1	..	11,554	17 31
Emerson & Porter ...	"	1	..	..	..	..	..	1	..	11,975	17 95
Club Stable, Chardon street.....	"	1	..	..	..	..	..	1	..	21,358	32 03
Beacon Club Stable..	"	1	..	..	..	..	..	1	..	22,489	33 72
J. H. Richardson....	"	1	..	..	..	..	..	1	..	70,767	106 13
Henry Beckwith.....	"	2	..	..	..	..	..	2	..	40,174	60 25
F. A. Phelps, 262 Harrison ave.	"	1	..	..	..	..	..	1	..	12,159	18 23
E. Hoisington & Co. .	"	1	..	..	..	..	..	1	..	35,606	53 40
Parker Bryant	"	1	..	..	..	..	..	1	..	31,779	47 65
M. L. Ham.....	"	2	..	..	..	..	..	2	..	25,678	38 49
F. S. Rice & Co.	"	1	..	..	..	..	..	1	..	77,663	116 48
M. & W. Ham.....	"	1	..	..	..	..	..	1	..	38,091	57 12
J. H. Pote & Co.	"	1	..	..	..	..	..	1	..	6,890	10 32
J. B. Cassidy & Bro..	"	1	..	..	..	..	..	1	..	35,693	53 53
Erie & N.E. Express Co.....	"	1	..	..	..	..	..	1	..	42,933	64 38
W. H. Berry.....	"	1	..	..	..	..	..	1	..	38,759	58 12
N.Y. & Boston Express Co.....	"	1	..	..	..	..	..	1	..	51,499	77 24
J. A. Riedel & Co....	"	1	..	..	..	..	..	1	..	31,906	47 84
J. C. Richardson, 77 Causeway st.....	"	1	..	..	..	..	..	1	..	43,089	64 61
E. R. Webster	"	1	..	..	..	..	..	1	..	30,400	45 60
Club Stable, 75 Chestnut st.....	.....	1	..	..	..	..	..	1	..	30,424	45 61
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	173,423,669	\$260,121 92

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	173,423,669	\$260,121 92
C. S. Godfrey	Stable	1	..	..	..	..	..	1	..	34,800	52 18
Clark & Brown, 22 Charles st.	"	..	1	..	..	..	..	1	..	173,106	259 65
Clark & Brown, 8 Lime st.	"	1	..	..	..	..	..	1	..	11,788	17 67
W. P. Harrington	"	1	..	..	..	..	..	1	..	21,092	31 63
Tremont Stables	"	2	..	..	..	..	..	2	..	130,867	196 28
Geo. D. Otis & Co.	"	1	..	..	..	..	..	1	..	25,702	38 54
L. Flanders & Co., Granite st.	"	1	..	..	..	..	..	1	..	16,504	24 75
W. H. Dole	"	1	..	..	..	..	..	1	..	9,335	14 00
J. S. Hilliard	"	2	..	..	..	..	..	2	..	12,399	18 58
Fifield, Richardson, & Co.	"	1	..	..	..	..	..	1	..	20,219	30 32
Johnson & Co.	"	1	..	..	..	..	..	1	..	18,972	28 44
L. Flanders & Co., 200 Third st.	"	1	..	..	..	..	..	1	..	10,062	15 07
Lewis Higgins	"	1	..	..	..	..	..	1	..	15,422	23 12
C. F. Lord & Co.	"	1	..	..	..	..	..	1	..	30,692	46 03
Cilly & Stimson	"	1	..	..	..	..	..	1	..	48,127	72 17
Club Stable, 44 Joy st.	"	1	..	..	..	..	..	1	..	52,466	78 69
Asa Critchett	"	1	..	..	..	..	..	1	..	17,334	25 98
A. S. Eaton	"	..	1	..	..	..	..	1	..	51,470	77 20
L. A. Noyes	"	1	..	..	..	..	..	1	..	16,647	24 95
Geo. D. Brown	"	1	..	..	..	..	..	5	..	11,812	17 71
J. H. Hathorne	"	..	1	..	..	..	..	1	..	137,013	205 50
H. D. Smith	"	1	..	..	..	..	..	1	..	16,012	24 01
A. N. Munroe	Stocky'd	..	..	..	..	..	1	1	..	362,901	544 34
Geo. W. Hollis, N. Beacon st.	Slaught- ering y'd	..	..	..	..	1	..	1	..	208,340	312 50
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	174,876,751	\$262,301 23

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	174,876,751	\$262,301 23
George W. Hollis	Slaught- ering y'd	1	..	..	..	..	..	..	..	38,701	58 03
Boston Driving Ass'n.		..	..	..	1	..	1	1	..	114,430	171 63
National Tube Works.		..	1	..	..	..	..	1	..	107,463	161 18
Globe Nail Works		1	1	..	..	..	..	2	..	348,825	523 22
Farrington & Hunne- well	Silver- smiths	1	..	..	..	..	..	1	..	28,091	42 12
I. F. Scripture	Laundry	..	1	..	..	..	..	1	..	132,734	199 08
B. M. Cunningham	"	1	..	..	..	..	..	..	..	147,957	221 93
L. Prang & Co.	Chromos	..	1	..	..	..	..	1	..	270,611	405 89
J. H. Bufford & Co.	Lithog- raghers	..	1	..	..	..	..	1	..	71,831	107 74
R. G. Morse & Co.	Engine	1	..	..	..	..	..	1	..	46,832	70 24
Francis Brooks	"	1	..	..	..	..	..	1	..	47,431	71 13
Walworth Manuf. Co.	"	1	..	..	..	..	..	1	..	213,049	319 57
H. G. Denny	"	1	..	..	..	..	..	1	..	51,389	77 06
Potter & Co.	"	1	..	..	..	..	..	1	..	78,528	117 78
C. U. Cotting	"	..	1	..	..	..	..	1	..	21,991	32 97
David Snow	"	1	..	..	..	..	..	1	..	25,398	38 08
Boston Gas Light Co.	Gas Holders.	..	1	..	..	..	..	1	..	167,609	251 40
" " " "	"	1	..	..	..	..	..	1	..	33,203	49 79
Moses B. Wilde	Engine	1	..	..	..	..	..	1	..	84,291	126 43
Brush Electric Light- ing Co.	"	..	1	..	..	..	..	1	..	527,288	790 93
Swan Electric Light- ing Co.	"	1	..	..	..	..	..	1	..	34,153	51 22
N. E. Weston Electric Lighting Co.	"	..	..	1	..	..	..	1	..	201,131	301 68
N. E. Weston Electric Lighting Co., Stan- hope st.	"	..	1	..	..	..	..	1	..	187,950	281 92
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	177,857,637	\$296,772 25

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	177,857,637	\$265,772 25
F. C. Otis	Engine	1	..	..	..	..	..	1	..	6,983	10 47
John Foster.....	"	1	..	..	..	..	..	1	..	34,407	51 60
E. J. Brown, 31 Lincoln st.	"	1	..	..	..	..	..	1	..	39,091	58 63
J. S. Potter, 54 Commercial st.	"	..	1	..	..	..	..	1	..	58,446	87 66
John Briggs & Co....	Mill	1	..	..	..	..	..	1	..	99,131	148 69
J. S. Potter.....	"	1	..	..	..	..	..	1	..	43,805	65 70
S. B. Stebbins.....	"	1	..	..	..	..	1	..	..	107,210	160 80
L. W. Pickens	"	1	..	..	..	..	..	1	..	106,226	159 31
C. E. Folsom.....	"	1	..	..	..	..	..	1	..	12,657	18 98
Boston City Flour Mills	"	..	1	..	..	..	..	1	..	69,152	103 72
J. J. McNutt.....	"	..	2	..	..	..	..	2	..	360,324	540 47
Glendon Co.	"	..	1	..	..	..	..	1	..	178,169	267 23
Manson Bros.	"	3	..	..	..	..	..	3	..	189,452	284 16
A. & J. McLaren & Co.	"	1	..	..	..	..	..	1	..	105,237	157 84
W. L. Sturtevant....	"	1	..	..	..	..	..	1	..	97,610	146 40
George McQuesten ..	"	1	..	..	..	..	..	1	..	64,651	96 90
J. F. Paul & Co.....	"	..	2	..	..	..	..	2	..	302,181	453 26
Bugbee & Spooner...	"	1	..	..	..	..	..	1	..	68,817	103 21
J. A. Robertson	"	1	..	..	..	..	..	1	..	141,557	212 32
Stetson, Moseley, & Co.	"	..	1	..	..	..	..	1	..	102,694	154 02
S. H. L. Pierce	"	1	..	..	..	..	..	1	..	104,776	157 14
A. J. Stearns & Son..	"	..	1	..	..	..	..	1	..	7,434	11 13
Palmer, Parker, & Co.	"	1	..	..	..	..	..	1	..	94,463	141 69
J. F. Keating	"	1	..	..	..	..	..	1	..	58,172	87 25
Watson & Bisbee	"	1	..	..	..	..	..	1	..	90,076	135 11
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	180,400,358	\$270,585 94

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>		..	..	..	..	..	..	..	..	180,400,358	\$270,585 94
Laming & Drisko	Mill	1	..	..	..	..	..	1	..	70,135	105 18
Creesy & Noyes	"	1	1	..	..	..	..	2	..	216,648	324 96
Smith & Jacobs	"	1	..	..	..	..	..	1	..	93,042	139 55
B. D. Whitcomb	"	1	..	..	..	..	..	1	..	162,398	243 58
S. Crosby & Son	"	..	1	..	..	..	..	1	..	113,624	170 42
Nathaniel Cummings.	"	1	..	..	..	..	..	1	..	17,105	25 64
Nelson Curtis	"	1	..	..	..	..	..	1	..	46,851	70 26
Atlantic Dyewood Co.	"	..	..	..	1	..	..	1	..	1,194,538	1,791 79
Standard Dyewood Mill		..	1	..	..	..	..	1	..	232,933	349 39
Caswell, Livermore, & Co	Fish Store	1	..	..	..	..	..	1	..	24,813	37 21
G. A. York & Co	Bacon Works	..	1	..	..	..	..	1	..	43,269	64 89
Boston Storage Ware- house	Building	1	..	..	..	..	..	1	..	31,562	47 34
Forest Garden		1	..	..	..	..	..	1	..	Not using.	
Quincy Cold Storage Co		1	..	..	..	..	..	1	..	10,600	15 90
Boston Water Meter Co., Foster's wharf.	Testing Meters	..	..	..	1	..	..	1	..	41,920	62 87
J. L. Bolster	Bakery	1	..	..	..	..	..	1	..	10,307	15 44
G. K. Withington & Co.	"	1	..	..	..	..	..	1	..	59,364	89 04
J. H. Chadwick	House & Fountain	1	..	..	..	..	..	1	..	61,591	92 37
Horatio Harris	"	1	..	..	..	..	..	1	..	Vacant.	
Oakland Garden	"	..	1	..	..	..	..	1	..	26,681	40 00
J. C. Nichols	Wharf purposes	1	..	..	..	..	..	1	..	30,238	45 34
Warren & Co., Agts..	Steam'rs	..	..	..	1	..	..	1	..	193,970	290 95
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	183,081,947	\$274,608 06

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	183,081,947	\$274,608 06
Hingham Steamboat Co.	Steam'rs	..	..	..	..	1	..	1	..	734,070	1,101 10
Hingham, Hull, & D. L. Steamboat Co. . .	"	..	..	..	..	1	..	1	..	189,810	284 70
Nahant Steambt. Co. . .	"	..	..	..	..	1	..	1	..	133,680	200 52
Nickerson & Co.	"	..	..	..	..	..	1	1	..	43,940	65 91
Cunard Steamship Co. . .	"	..	..	..	..	1	..	1	..	560,340	840 50
Portland Steam Packet Co.	"	..	..	..	1	..	..	1	..	291,081	436 61
International Steamboat Co.	"	..	..	..	1	..	..	1	..	227,800	341 69
J. Henry Sears & Co. . .	"	..	..	..	1	..	..	1	..	80,005	119 99
South Shore Steamship Co.	"	..	..	..	1	..	..	1	..	165,420	248 12
House of Correction		..	..	..	..	..	1	1	..	1,684,120	2,526 17
Lunatic Hospital		1	3	..	..	..	..	4	..	538,849	808 25
City Hospital.		1	7	..	..	..	..	8	..	1,413,267	2,119 88
Charity Building		2	..	..	..	..	..	2	..	62,478	93 70
Temporary Home.		1	..	..	..	..	..	1	..	66,677	100 00
City Hall		1	2	..	..	..	..	3	..	185,981	278 97
Wayfarers' Lodge.		..	1	..	..	..	..	1	..	75,843	113 75
Austin Farm		..	1	..	..	..	..	1	..	346,019	519 01
Suffolk County Court-House		..	2	..	..	..	..	2	..	183,505	275 25
Suffolk County Jail.		1	1	..	1	..	..	3	..	214,861	322 28
Directors of Public Institutions		2	3	..	1	..	..	6	..	865,649	1,298 46
Marcella-st. Home.		..	1	1	..	..	..	2	..	547,604	821 39
South Ferry.		..	..	..	1	1	..	2	..	1,278,820	1,918 22
North Ferry.		1	..	..	..	2	..	3	..	556,650	834 98
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	193,528,416	\$290,277 51

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	193,528,416	\$290,277 51
Board of Health.....	Public Urinals	1	..	..	..	..	..	1	..	107,717	161 56
Police Station No. 1..	.....	1	..	..	..	..	..	1	..	62,258	93 39
“ “ 2..	.....	..	1	..	..	..	..	1	..	111,654	167 49
“ “ 3..	.....	..	1	..	..	..	..	1	..	22,760	34 13
“ “ 4..	.....	1	..	..	..	..	..	1	..	56,865	85 29
“ “ 5..	.....	1	..	..	..	..	..	1	..	45,193	67 80
“ “ 6..	.....	..	1	..	..	..	..	1	..	57,923	86 86
“ “ 7..	.....	1	..	..	..	..	..	1	..	21,057	31 60
“ “ 8..	.....	1	..	..	..	..	..	1	..	69,830	104 75
“ “ 9..	.....	1	..	..	..	..	..	1	..	19,437	29 16
“ “ 10..	.....	1	..	..	..	..	..	1	..	36,102	54 14
“ “ 12..	.....	1	..	..	..	..	..	1	..	15,792	23 70
“ “ 13..	.....	1	..	..	..	..	..	1	..	10,043	15 05
City Prison .....	.....	..	..	..	1	..	..	1	..	266,940	400 40
Lawrence School	School Building	2	..	..	..	..	..	2	..	22,484	33 72
Rice School.....	“	1	..	..	..	..	..	1	..	26,800	40 18
Chapman School.....	“	..	1	..	..	..	..	1	..	20,081	30 10
Wells School.....	“	1	..	..	..	..	..	1	..	40,442	60 65
Comins School	“	1	..	..	..	..	..	1	..	17,322	25 97
Brimmer School.....	“	1	..	..	..	..	..	1	..	15,765	23 63
Andrews School.....	“	..	1	..	..	..	..	1	..	112,432	168 64
Prince School.....	“	..	1	..	..	..	..	1	..	160,290	240 42
Everett School, Dorchester	“	1	..	..	..	..	..	1	..	36,344	54 51
Adams School.....	“	1	..	..	..	..	..	1	..	15,155	22 72
Gibson School.....	“	1	..	..	..	..	..	1	..	36,814	55 20
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	194,935,916	\$292,388 57

Name.	Class.	5.8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>		..	..	..	..	..	..	..	..	194,935,916	\$292,388 57
Chas. Sumner School.	School Building	1	..	..	..	..	..	1	..	20,041	30 05
Sherwin School.....	"	..	1	..	..	..	..	1	..	195,809	293 70
Bennett School.....	"	1	..	..	..	..	..	1	..	5,372	8 05
Roxbury High School.	"	1	..	..	..	..	..	1	..	6,419	9 61
Dudley School	"	1	2	..	..	..	..	3	..	84,319	126 46
Allston School.....	"	1	..	..	..	..	..	1	..	55,932	83 88
Hillside School.....	"	1	..	..	..	..	..	1	..	20,718	31 07
Harris School	"	1	..	..	..	..	..	1	..	18,331	27 48
Mather School.....	"	..	1	..	..	..	..	1	..	122,333	183 48
English High and Latin School	"	..	1	..	2	..	..	3	..	243,791	365 66
L. W. Morrill & Co...	Rotary Fan	1	..	..	..	..	..	1	..	21,549	32 32
First Church	Organ	..	..	..	..	..	..	..	1	13,032	19 55
King's Chapel	"	..	..	..	..	..	..	..	1	20,559	30 84
Cathedral of the Holy Cross.....	"	..	..	..	..	..	..	..	2	31,100	46 65
St. Mary's Church...	"	..	1	..	..	..	..	1	1	63,024	94 52
Tremont-st. M.E. Church	"	..	1	..	..	..	..	1	..	19,783	29 66
South Cong'l Church.	"	..	..	..	..	..	..	..	2	17,485	26 23
First Univ. Church ..	"	..	..	..	..	..	..	..	1	26,639	39 96
Columbus-av. Univ. Church	"	..	1	..	..	..	..	1	..	22,641	33 95
Shawmut Cong'l Soc'y	"	..	..	..	..	..	..	..	1	43,100	64 65
Church of the Holy Redeemer.....	"	..	..	..	..	..	..	..	1	15,000	22 50
St. Francis De Sales Church	"	..	..	..	..	..	..	..	1	11,100	16 65
St. Columbkille, Catholic Church ..	"	..	..	..	..	..	..	..	1	900	1 35
<i>Amounts car'd forw'd..</i>		..	..	..	..	..	..	..	..	196,014,893	\$294,006 84

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator	Cubic feet.	Revenuc.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	196,014,893	\$294,006 84
Church of the Messiah	Organ	..	..	..	..	..	..	..	1	39,300	58 95
St. Patrick's Church.	"	..	..	..	..	..	..	..	1	33,200	49 80
Ruggles-st Baptist Church.....	"	..	..	..	..	..	..	..	1	29,800	44 70
St. Joseph's Church..	"	..	..	..	..	..	..	..	1	50,100	75 15
Meth't Epis. Church.	"	..	..	..	..	..	..	..	1	9,600	14 40
A. J. Knight	"	..	..	..	..	..	..	..	1	Not using.	
Church of the Immaculate Conception ..	"	..	..	..	..	..	..	..	1	66,027	99 04
Clarendon-st. Baptist Church	"	..	..	..	..	..	..	..	1	17,300	25 95
Second Church Soc'y.	"	..	..	..	..	..	..	..	1	11,121	16 67
St. James Church ...	"	..	..	..	..	..	..	..	1	27,900	41 85
First Baptist Church Society	"	..	..	..	..	..	..	..	1	13,046	19 57
Boston Society New Jerusalem	"	..	..	..	..	..	..	..	1	7,118	10 68
Second Hawes Unit. Society	"	1	..	..	..	..	..	1	..	10,938	16 39
Old South Church Society.....	"	..	..	..	..	..	..	..	1	34,238	51 36
Trinity Church Soc'y.	"	..	..	..	..	..	..	..	3	104,200	156 30
German Catholic Ch.	"	..	..	..	..	..	..	..	1	29,600	44 40
Church of the Good Shepherd	"	..	..	..	..	..	..	..	1	19,800	29 70
Central Cong'l Soc'y.	"	..	..	..	..	..	..	..	1	19,100	28 65
J. R. Pierce.....	"	..	..	..	..	..	..	..	1	Not using.	
Bancroft & Dyer.....	Elevator	..	1	..	..	..	..	1	..	100,184	150 26
John L. Gardner	"	..	..	..	1	..	..	1	..	9,374	14 05
Job F. Bailey	"	..	1	..	..	..	..	1	..	111,488	167 28
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	196,758,327	\$295,121 99

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	196,758,327	\$295,121 99
Miller House.....	Elevator	..	..	..	..	..	..	..	1	22,300	33 45
R. A. Tuttle	"	..	..	..	..	..	..	..	1	90,200	135 29
Henry S. Hovey.....	"	..	..	..	1	..	..	1	..	4,530	6 78
E. Williams.....	"	..	..	..	..	..	..	..	1	11,400	17 10
C. W. Guy & Bros...	"	..	1	..	..	..	..	1	..	58,204	87 27
M. D. Spaulding	"	..	..	..	..	..	..	..	1	21,542	32 30
William Claflin.....	"	..	..	..	1	..	..	..	1	33,620	50 42
Mrs. H. D. Reed	"	..	..	..	..	..	..	..	1	5,769	8 58
Chickering & Sons...	"	..	..	..	..	..	..	..	4	292,020	438 02
Odd Fellows' Building	"	..	..	1	..	..	..	1	1	26,050	39 07
Davis & Co.	"	..	..	..	..	..	..	..	2	66,079	99 11
A. J. Stearns	"	..	..	..	..	..	..	..	1	28,700	43 05
James Tucker	"	..	..	..	..	..	..	..	1	206,254	309 38
Marshall Son & Co...	"	..	..	..	..	..	..	..	1	88,700	133 05
E. H. Sampson.....	"	..	..	..	..	..	..	..	1	56,000	84 00
Stowe, Bills, & Hawley	"	..	..	..	..	..	..	..	2	85,750	128 61
J. C. Haynes, 13 High st.	"	..	..	..	..	..	..	..	1	103,600	155 40
Lewis Brown & Co...	"	..	..	..	..	..	..	..	1	268,206	402 29
Claflin & Thayer	"	..	..	..	..	..	..	..	2	183,200	274 80
McConnell & Gardner	"	..	..	..	..	..	..	..	1	140,400	210 60
W. E. Putnam & Co..	"	..	..	..	..	..	..	..	1	113,300	169 95
Henry Bond & Co., 237 Congress st....	"	..	..	..	..	..	..	..	1	106,200	159 30
J. S. Stone.....	"	..	..	..	..	..	..	..	1	161,100	241 65
Dennison Manuf'g Co.	"	..	..	..	..	..	..	..	2	263,330	394 99
A. Low Co.....	"	..	..	..	..	..	..	..	1	255,500	383 25
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	199,450,281	\$299,159 70

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	199,450,281	\$299,159 70
N. B. Stevens	Elevator	..	..	..	..	..	..	..	1	62,600	93 90
Rhodes & Co.	"	..	..	..	..	..	..	..	1	146,700	220 05
Carey & Fulton	"	..	..	..	..	..	..	..		314,700	472 05
John Cummings & Co.	"	..	..	..	..	..	..	..	1	88,400	132 60
Pope Man'fg Co.	"	..	..	..	..	..	..	..	1	99,300	148 95
Mrs. H. W. Harris...	"	..	..	..	..	..	..	..	1	42,000	63 00
O. H. Underhill	"	..	..	..	..	..	..	..	1	106,500	159 75
Hotel Westminster...	"	..	1	..	..	..	..	1	1	46,200	69 30
Hotel Warwick	"	..	1	..	..	..	..	1	1	106,600	159 90
Hotel Lyndeboro'....	"	..	..	..	..	..	..	..	1	217,312	325 96
Hotel Clifford	"	..	..	..	..	..	..	..	1	133,860	200 78
Hotel Berwick	"	..	..	..	..	..	..	..	1	334,290	501 42
Hotel Edinburgh	"	..	..	..	..	..	..	..	1	173,100	259 65
Albert Thompson & Co.	"	..	..	..	..	..	..	..	1	45,880	68 81
Mrs. J. Longley	"	..	..	..	..	..	..	..	1	3,463	5 18
J. S. Rockwell & Co.	"	..	..	..	..	..	..	..	1	55,400	83 10
Notman & Campbell..	"	..	..	..	..	..	..	..	1	38,800	58 20
A. P. Martin & Co. ..	"	..	..	..	..	..	..	..	1	113,000	169 50
Vinal, Pope, & Co....	"	..	..	..	..	..	..	..	1	112,400	168 60
A. Storrs & Co.	"	..	..	..	..	..	..	..	2	59,400	89 09
Abram French & Co..	"	..	..	..	..	..	..	..	2	108,680	163 01
Talbot, Wilmarth, & Co.	"	..	..	..	..	..	..	..	1	142,800	214 20
E. T. Hayes	"	..	..	..	..	..	..	..	1	8,900	13 35
Brown, Steese, & Clark	"	..	..	..	..	..	..	..	1	53,500	80 25
H. W. Wadleigh	"	..	..	..	..	..	..	..	1	2,400	3 60
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	202,066,466	303,083 90

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>		..	..	..	..	..	..	..	..	202,066,466	\$303,083 90
Bragg, Conant, & Co..	Elevator	..	..	..	..	..	..	..	2	43,830	65 74
Fairbanks & Brown..	"	..	..	..	..	..	..	..	1	145,580	218 36
W. E. Underwood ...	"	..	..	..	..	..	..	..	6	61,773	92 65
George D. Howe	"	..	..	..	..	..	..	..	2	237,310	355 96
Converse & Stanwood,	"	..	..	..	..	..	..	..	1	44,570	66 85
Daniels, Badger, & Co.	"	..	..	..	..	..	..	..	1	104,700	157 05
Wright, Worster, & Delano	"	..	..	..	..	..	..	..	1	111,774	167 65
Hotel La Fayette	"	..	..	..	..	..	..	..	6	273,917	410 86
Hotel Baldwin	"	..	1	..	..	..	..	1	1	151,000	226 50
Doll & Richards	"	..	..	..	..	..	..	..	2	139,570	209 34
Benjamin Estabrook .	"	..	..	..	..	..	..	..	1	61,720	92 57
Thomas Groom.....	"	..	..	..	..	..	..	..	1	73,520	110 28
Enoch Page.....	"	..	..	..	..	..	..	..	1	Not using	
F. R. Sears	"	..	..	..	..	..	..	..	1	6,970	10 45
S. D. Warren.....	"	..	..	..	..	..	..	..	1	35,381	53 05
Howe Bros.....	"	..	..	..	..	..	..	..	2	45,609	68 40
Dyer, Taylor, & Co. .	"	..	..	..	..	..	..	..	6	200,286	300 41
Henry Bond, 249 Purchase st.	"	..	..	..	..	..	..	..	1	205,100	307 65
Henry Bond, 87 High st.	"	..	..	..	..	..	..	..	2	53,960	80 93
David Parker, 151 Summer st.	"	..	..	..	..	..	..	..	2	48,660	72 98
J. Montgomery Sears, 12 Arlington st. ...	"	..	..	..	..	..	..	..	3	92,869	139 30
A. W. Stetson.....	"	..	..	..	..	..	..	..	1	9,000	13 49
H. A. Turner & Co...	"	..	..	..	..	..	..	..	2	108,603	162 90
<i>Amounts car'd forw'd..</i>		..	..	..	..	..	..	..	..	204,322,168	306,467 27

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>	.....	..	..	..	..	..	..	..	..	204,322,168	\$306,467 27
R. M. Hodges	Elevator	..	..	..	..	..	..	..	1	12,170	18 25
J. H. Wright.....	"	..	..	..	..	..	..	..	1	Not using.	
Hotel Comfort.....	"	..	..	..	..	..	..	..	6	97,677	146 50
Duffy, Cashman, & Co.....	"	..	..	..	..	..	..	..	1	70,220	105 31
Jones, Cook, & Co. ..	"	..	..	..	..	..	..	..	1	52,100	78 15
Andrew Wetherbee ..	"	..	..	..	..	..	..	..	2	67,758	101 63
Peter C. Brooks	"	..	..	..	..	..	..	..	1	80,560	120 83
Continental Block ...	"	..	..	..	..	..	..	..	1	116,730	175 09
Gardiner, Murphy, & Co.	"	..	..	..	..	..	..	..	1	43,872	65 78
Mrs. T. B. Williams.	"	..	..	..	..	..	..	..	1	61,060	91 58
Howard Nat'l Bank ..	"	..	..	..	..	..	..	..	2	503,250	754 86
Sidney Bartlett.....	"	..	..	..	..	..	..	..	1	19,030	28 54
Wendell, Fay, & Co..	"	..	..	..	..	..	..	..	1	75,900	113 85
Continental B. Build'g	"	..	..	..	..	..	..	..	1	29,097	43 64
C. D. Swain & Co....	"	..	..	..	..	..	..	..	1	32,440	48 65
J. A. & W. Bird.....	"	..	..	..	..	..	..	..	2	419,350	629 02
Rice, Kendall, & Co..	"	..	..	..	..	..	..	..	1	287,987	431 96
Edmund Quincy	"	..	..	..	..	..	..	..	1	14,487	21 72
Gross & Strauss.....	"	..	..	..	..	..	..	..	1	225,400	338 10
B. E. Bates	"	..	..	..	..	..	..	..	1	13,294	19 93
E. Henshaw & Co. ...	"	..	..	..	..	..	..	..	1	57,364	86 04
Kidder, Peabody, & Co.....	"	..	..	..	..	..	..	..	1	71,006	106 49
C. W. Pierce.....	"	..	..	..	..	..	..	..	1	17,685	26 51
Geo. W. Chipman & Co.....	"	..	..	..	..	..	..	..	2	189,570	284 35
<i>Amounts car'd forw'd.</i>	.....	..	..	..	..	..	..	..	..	206,880,175	\$310,304 05

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd</i>		..	..	..	..	..	..	..	..	206,880,175	\$310,304 05
D. W. King	Elevator	..	..	..	..	..	..	..	1	5,226	7 83
Loring Paper & Twine Co.	"	..	..	..	..	..	..	..	2	61,480	92 21
Henry L. Daggett . . .	"	..	..	..	..	..	..	..	1	21,085	31 61
A. Wentworth	"	..	..	..	..	..	..	..	1	117,200	175 80
Atlantic Nat'l Bank . .	"	..	..	..	..	..	..	..	1	184,625	276 88
O. Ditson & Co., 453 Washington st.	"	..	..	..	..	..	..	..	2	783,703	1,175 55
Jacobs Rogers & Co. . .	"	..	..	..	..	..	..	..	1	172,480	258 70
J. & J. Dobson	"	..	..	..	..	..	..	..	3	139,430	209 14
Robbins & Kellogg . . .	"	..	..	..	..	..	..	..	1	151,600	227 38
Houghton & Coolidge .	"	..	..	..	..	..	..	..	1	162,070	243 09
Horswell & French . . .	"	..	..	..	..	..	..	..	1	54,490	81 73
J. T. Bailey	"	..	..	..	..	..	..	..	1	10,940	16 40
Z. A. Willard	"	..	..	..	..	..	..	..	2	33,348	50 01
Minot, Hooper, & Co. .	"	..	..	..	..	..	..	..	1	178,350	267 52
J. P. Paine	"	..	1	..	..	..	..	1	1	62,000	93 00
Miss E. D. Brewer . . .	"	..	..	..	..	..	..	..	1	Not using.	
J. M. Beebe	"	..	..	..	..	..	..	..	1	4,886	7 32
Webster, Folger, & Co. .	"	..	..	..	..	..	..	..	1	84,000	125 98
Paul & Co.	"	..	..	..	..	..	..	..	2	32,610	48 91
Oliver Ditson & Co., 449 Washington st. .	"	..	..	..	..	..	..	..	1	120,050	180 07
W. H. Slocum	"	..	..	..	..	..	..	..	2	341,800	512 70
Daniel S. Ford	"	..	..	..	..	..	..	..	1	19,244	28 86
Martin Brimmer	"	..	..	..	..	..	..	..	1	3,548	5 32
Hotel Aldine	"	..	..	..	..	..	..	..	1	37,930	56 89
E. C. Keller	"	..	..	..	..	..	..	..	1	5,265	7 89
<i>Amounts car'd forw'd</i>		..	..	..	..	..	..	..	..	209,667,535	\$314,484 84

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd.</i>	.....	..	..	..	..	..	..	..	..	209,667,535	314,484 84
Hotel Howland.....	Elevator	..	..	..	..	..	..	..	1	41,250	61 87
F. Ames.....	"	..	..	..	..	..	..	..	1	941	1 41
Charles H. Ward....	"	..	..	..	..	..	..	..	1	78,000	117 00
Doe & Hunnewell....	"	..	..	..	..	..	..	..	2	182,040	273 05
Henry Bond, 301 Shawmut ave.	"	..	..	..	..	..	..	..	2	169,160	253 73
J. N. Denison.....	"	..	..	..	..	..	..	..	1	6,098	9 13
Howe, Galloupe, & Co.	"	..	..	..	..	..	..	..	1	68,500	102 74
E. Torrey.....	"	..	..	..	..	..	..	..	1	2,731	4 09
S. E. Brackett	"	..	..	..	..	..	..	..	2	37,930	56 88
Thomas Mack.....	"	..	..	..	1	..	..	1	..	6,354	9 51
C. H. Denny.....	"	..	..	..	..	..	..	..	1	5,909	8 85
George Lyon.....	"	..	..	..	..	..	..	..	1	17,490	26 22
C. T. Hubbard	"	..	..	..	..	..	..	..	1	21,932	32 87
Fisher & Fairbanks ..	"	..	..	..	..	..	..	..	1	7,592	11 37
G. W. Harding	"	..	..	..	..	..	..	..	1	33,490	50 23
E. D. Jordan.....	"	..	..	..	..	..	..	..	1	22,746	34 11
David Parker & Co., 147 Summer st.	"	..	..	..	..	..	..	..	2	133,940	200 89
Henry Wood.....	"	..	..	..	..	..	..	..	1	10,530	15 79
Bushby, Macurdy, & Fritz.	"	..	..	..	..	..	..	..	1	33,326	49 97
S. Hirshburg & Bro. .	"	..	..	..	..	..	..	..	2	47,670	71 49
Boston Cold Storage and Freezing Co. ..	"	..	..	..	..	..	..	..	3	143,232	214 84
James L. Little.....	"	..	..	..	..	..	..	..	1	26,750	40 12
Levi Bolles	"	..	..	..	..	..	..	..	1	198,400	297 60
S. N. Brown, Jr., 119 Commonwealth ave.	"	..	..	..	..	..	..	..	1	7,342	11 00
<i>Amounts car'd forw'd.</i>	.....	..	..	..	..	..	..	..	..	210,970,888	\$316,439 60

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Indicator.
<i>Amounts br't forw'd.</i>		..	..	..	..	..	..	..	..	210,970,888	\$316,439 60
V. R. Shaw	Elevator	..	..	..	..	..	..	..	1	1,922	2 88
B. P. Cunningham...	"	..	..	..	..	..	..	..	1	189,283	283 91
Banchor & Richardson	"	..	..	..	..	..	..	..	2	28,760	43 13
Hotel Garfield.....	"	..	..	..	..	..	..	..	1	35,720	53 57
D. Kennedy.....	"	..	..	..	..	..	..	..	2	94,210	141 30
E. B. Horn	"	..	..	..	..	..	..	..	1	18,380	27 56
A. P. Morse	"	..	..	..	..	..	..	..	1	84,473	126 70
Joseph Peabody	"	..	..	..	..	..	..	..	1	Not using.	
G. D. Sargent.....	"	..	..	..	..	..	..	..	1	4,506	6 75
F. O. White	Motor	..	..	..	..	..	..	..	1	10,000	15 00
E. N. Yerxa	"	..	..	..	..	..	..	..	1	14,690	22 03
L. W. & H. F. Morse.	"	..	..	..	..	..	..	..	1	7,000	10 49
Jacob Wirth	"	..	..	..	..	..	..	..	1	68,700	103 05
Cobb Bros.	"	..	..	..	..	..	..	..	1	8,500	12 75
Atlantic Tea Co.....	"	..	..	..	..	..	..	..	1	88,400	132 60
E. D. Bangs & Co. ..	"	..	..	..	..	..	..	..	1	78,600	117 90
Naylor & Co.....	"	..	..	..	..	..	..	..	1	38,700	58 05
T. H. Foley.....	"	..	..	..	..	..	..	..	1	20,500	30 75
J. W. Goodnow	"	..	..	..	..	..	..	..	1	55,300	82 95
Telephone Despatch Co.	"	1	..	..	..	..	..	1	..	41,898	62 82
Geo. S. Forbush.....	"	..	..	..	..	..	..	..	1	35,900	53 85
Brokers' Board.....	"	..	..	..	..	..	..	..	1	35,100	52 65
J. H. Pierce & Co....	"	..	..	..	..	..	..	..	1	17,300	25 95
E. F. Wilder.....	"	..	..	..	..	..	..	..	1	6,800	10 20
London Tea Co.....	"	..	..	..	..	..	..	..	1	29,800	44 70
William Tufts.....	"	..	1	..	..	..	..	1	..	218,562	327 83
<i>Amounts car'd forw'd.</i>		..	..	..	..	..	..	..	..	212,203,892	\$318,288 97

Name.	Class.	5-8 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Total.	Indicator.	Cubic feet.	Revenue.
<i>Amounts br't forw'd..</i>		..	..	..	..	..	..	..	..	212,203,892	\$318,288 97
John Lyons	Motor	..	1	..	..	..	..	1	..	16,416	24 61
James O. Gray	"	..	..	..	..	..	..	..	1	35,442	53 16
Stimson & Co.....	"	..	..	..	..	..	..	..	..	34,290	51 43
Honey & Donnelly...	"	..	..	..	..	..	..	..	..	16,980	25 47
H. R. Plympton	"	1	..	..	..	..	..	1	..	1,476	2 20
Chase & Atwood.....	"	1	..	..	..	..	..	1	..	11,894	17 84
McDonald & Atwood, 1 month	"	..	..	..	..	..	..	..	1	1,400	2 10
McDonald & Atwood, 1 month	"	..	..	..	..	..	..	..	1	1,100	1 65
Ware & Hastings	"	1	..	..	..	..	..	1	..	5,127	7 68
Merrill & Co.	"	..	1	..	..	..	..	1	..	6,397	9 58
Alfred C. Garner	"	1	..	..	..	..	..	1	..	4,765	7 14
Clark & Freeman.....	"	1	..	..	..	..	..	1	..	14,968	22 44
C. D. Cobb	"	..	1	..	..	..	..	1	..	7,102	10 65
Colton Water Motor Co.	"	1	..	..	..	..	..	1	..	13,230	19 84
John Fox.....	"	..	1	..	..	..	..	1	..	5,899	8 84
Cedar Grove Cemet'y	Cemet'ry	..	..	..	..	1	..	1	..	413,120	309 83
Forest Hills Cemet'y.	"	..	..	..	..	1	..	1	..	401,770	301 32
Charles G. Watson and others	Marine Water- men, as per con- tract ..	..	..	..	3	..	..	3	..	331,045	620 67
Total.....		..	..	..	..	..	..	..	..	213,526,313	\$319,785 42

Statement showing the Number and Kind of Water Fixtures contained within the Premises of Water-takers in the City of Boston, January 1, 1882, as compared with previous years.

1880.	1881.	1882.	
9,228	9,674	10,004	Taps. These have no connection with any drain or sewer.
84,408	87,360	89,298	Sinks.
46,116	46,878	48,575	Wash-hand basins.
16,623	17,113	18,102	Bathing tubs.
27,535	28,677	29,976	Pan water-closets.
349	330	287	Hopper water-closets.
23,563	24,443	25,549	" " automatic.
583	469	503	" " waste.
1,069	996	1,034	Urinals.
2,972	3,232	3,356	" automatic.
19,139	19,710	20,741	Wash tubs. These are permanently attached to the building.
607	556	552	Shower-baths.
197	172	154	Private hydrants.
956	1,008	1,096	Slop-hoppers.
139	147	154	Foot-baths.
233,574	240,765	249,381	

Respectfully submitted,
WILLIAM F. DAVIS,
Water Registrar.

REPORT OF THE MYSTIC WATER REGISTRAR FOR THE YEAR 1882-3.

OFFICE OF THE MYSTIC WATER REGISTRAR,
BOSTON, CHARLESTOWN DISTRICT, May 1, 1883.

LEONARD R. CUTTER, ESQ.,
Chairman Boston Water Board:—

SIR,— The Annual Report of this department for the year ending April 30, 1883, is herewith respectfully submitted.

The total number of water-takers now entered for the year 1883 is 16,993, distributed as follows: Charlestown District, 6,225; Somerville, 5,008; Chelsea, 4,831; Everett, 929.

The total amount of water-rates received during the financial year of 1882-3 is as follows:—

Charlestown District	.	.	.	.	\$108,956 43
Somerville	.	.	.	.	71,790 71
Chelsea	.	.	.	.	61,671 63
Everett	.	.	.	.	9,916 50
					\$252,535 27

Paid the cities of Somerville, Chelsea, and town of Everett, as per contract	.	.	.	\$34,694 33
Received for water used in pre- vious years	.	.	.	14,427 57
Received for water used during the year	.	.	.	203,213 37
				\$252,335 27

Received for labor and material furnished for work performed outside this department but connected with the Water- Works	.	.	.	\$4,879 65
Fines, non-payment	.	.	.	440 00
Sale of old material	.	.	.	360 56
Fees, summons	.	.	.	243 95
Off and on water for repairs	.	.	.	219 00
Maintaining meters	.	.	.	85 30
				6,228 46

Total amount received during the year, \$258,563 73

The expenses of the office during the year ending April 30, 1883, including all charges for collection in Chelsea, Somerville, and Everett, were \$8,230.10.

Table showing the Number of Places turned off for Non-payment of Rates during the Year 1882, the Number turned on again, and the Number still remaining off.

	Number turned off.	Number turned on.	Number remain- ing off.
Charlestown District	67	63	4
Chelsea	112	99	13
Somerville	51	45	6
Everett	11	9	2
Total	241	216	25

STAND-PIPES FOR STREET-WATERING.

The whole number in use in this department is 35, distributed as follows : —

Charlestown District.

Cambridge street, near Stickney & Poor's factory.
 “ “ Railroad.
 Rutherford avenue, “ City stables.
 “ “ Allen street.
 South Eden street, “ Main street.
 Prescott “ “ Harvard School building.
 Monument square, “ Laurel street.

Chelsea.

Cary square, corner Forsyth street.
 Broadway, near Stockton street.
 “ “ Cary avenue.

Somerville.

Washington street, corner Boston street.
 “ “ Myrtle street.
 “ near Union square.
 Summer street, “ Elm street.
 “ “ Laurel street.

Somerville avenue, near Poplar street.
 “ “ Cambridge line.
 “ “ Merriam street.
 “ “ Mossland street.
 Broadway, “ Franklin street.
 “ opposite Public park.
 Somerville avenue, “ 439 Somerville avenue.
 Spring street, near “
 Beacon street, “ Cooney street.
 Pinckney street, “ Pearl street.
 Pearl street, “ Cross street.
 Highland avenue, corner Medford street.
 Main street, junction Broadway.
 Medford street, near Sycamore street.

Everett.

Broadway, near Engine-house.
 “ “ Pleasant street.
 “ “ Chandler's.
 Main street, “ Chelsea street.
 Chelsea “ “ Winter street.
 Ferry “ “ Nichols street.

DRINKING-FOUNTAINS.

The whole number in use in this department is 20, distributed as follows:—

Charlestown District.

City square, corner Park street.	Automatic.
Bunker Hill street, corner Tufts street.	“
Canal street, “ South Eden street.	“
Main street, “ Hancock square.	“
“ near Tufts wharf.	“
Austin street, opposite Front street.	“

Chelsea.

Broadway square.	
“ near bridge.	Automatic.
Winnisimmet street, near Ferry.	
Pearl street, corner Marginal street.	
Eastern avenue, corner Crescent avenue.	

Somerville.

Union square. Automatic.
 Broadway, corner Walnut street.
 Highland avenue, corner Walnut street.
 Medford street, " Central street.
 Davis square.
 " " Automatic.
 Broadway, opposite Public park.
 Somerville avenue, junction Washington street.

Everett.

Main street, junction Broadway. Automatic.

Table showing the Number and Size of Meters, also the Number of Motors in the Mystic Water Department.

	SIZE OF METERS.								
	$\frac{5}{8}$ inch.	$\frac{3}{4}$ inch.	1 inch.	$1\frac{1}{2}$ inch.	2 inch.	3 inch.	4 inch.	Motors.	Total.
Charlestown District . .	90	56	53	2	33	3	6	2	248
Chelsea . .	26	24	19		6	1	1	2	79
Somerville .	22	10	25		11	1	4		73
Everett . .	1	1	1		1		1		5
Total . .	139	91	101	2	51	5	12	4	405

Rock crusher	26 67	As per contract.	13 00	8 50
Board of Public Institutions	6 00	As per contract.	75 00	16 00
Steamer, hose, and ladder houses	110	As per contract.	1,736 00	235 53
Fire hydrants	4,340 00	As per contract.		
Committee on Commons	15 00	As per contract.		
Health Department, sprinkling streets	50 00	As per contract.		
Sewer Department	50 00	As per contract.		
Street Department	6 00	As per contract.		
Paving Department	12 50	As per contract.		
Police Department, including court-room	40 00	As per contract.		
City Hall building, including Public Library	51 00	As per contract.		
Committee on Armories	90 00	As per contract.		
Committee on Bridges	18 00	As per contract.		
Commissioners West Boston Bridge	11 00	As per contract.		
Water Works Department		As per contract.	13 50	
Total	\$109,977 91		\$57,564 13	\$8,868 48

Referring to the above table, it will be observed that the water-rates are assessed in Charlestown and Somerville from January to January, and in Chelsea and Everett from July to July.

Table showing the Number and Kind of Water Fixtures contained within the Premises of Water-takers.

	Taps.	Sinks.	Wash-hand Basins.	Bath-Tubs.	WATER-CLOSESETS.						Shower Baths.	Urinals.	Wash-Tubs.	Private Hydrants.	Fire Hydrants.
					Pan.	Self-acting.	Hoppers.	Waste.	Stop Hop- Pers.						
Charlestown District	1,477	10,153	1,956	901	1,584	2,957	27	51	16	2	106	841	15	244	
Chelsea	840	6,632	1,569	1,020	1,372	1,766	12	12	7	16	59	566	2	142	
Somerville	1,318	6,430	1,759	1,272	1,691	1,686	26	58	6	1	78	818	5	294	
Everett	273	913	159	136	126	45		1			4	76		68	
Totals	3,908	24,128	5,443	3,329	4,773	6,454	65	122	29	19	247	2,301	22	748	

METER STATEMENT.

The following Table exhibits the Class of Premises to which Meters are attached, together with the Amount of Revenue received.

Name.	Class.	8 in.	6 in.	4 in.	3 in.	2 in.	1 1/2 in.	1 in.	3/4 in.	1/2 in.	Indicator.	Total.	Cubic feet.	Revenue.
CHARLESTOWN DISTRICT, 1882.														
United States of America.....	Navy Yard.....	..	..	..	1	..	..	..	..	..	..	3	3,254,881	\$4,882 28
United States of America.....	Marine Barracks	..	..	..	..	..	..	..	..	..	..	1	222,590	333 88
Wilkesbarre Coal Co.	Hoisting Engines.....	..	..	..	..	..	1	..	..	..	..	1	310,160	465 23
Boston & Maine Railroad Co.....	.....	..	1	1	..	1	..	..	..	..	..	5	4,241,671	6,362 49
Eastern Railroad Co.....	.....	2	..	..	..	2	..	..	..	..	..	5	5,125,701	7,688 54
Fitchburg Railroad Co.....	.....	1	1	..	..	3	..	..	..	..	..	5	2,754,353	4,131 52
Boston & Lowell Railroad Co.....	Elevator	..	1	..	..	1	..	..	..	..	..	2	145,716	218 57
Charlestown Gas Co.	Gas Works.....	2	..	..	..	1	..	..	..	..	..	3	166,658	249 99
William T. Van Nostrand & Co.	Brewery	..	..	..	..	1	..	..	..	..	..	1	666,450	999 67
Waverley House	Hotel.....	..	..	..	..	..	3	..	..	..	..	3	180,748	271 13
J. T. Hicks	Hall.....	..	..	..	..	..	1	..	..	..	..	1	28,166	42 26
Chapin, Trull, & Co.	Distillery	..	..	..	..	1	..	..	..	..	..	1	130,830	196 24
Prescott School .....	.....	..	..	..	..	..	1	..	..	..	..	1	56,747	85 12
Oriental Oil Co.	Oil Works	..	..	..	..	1	..	..	..	..	..	1	217,110	325 65
Amounts carried forward.....	.....	..	..	..	..	..	..	..	..	..	..	..	17,501,781	\$26,252 57

NIETHER STATEMENT. — Continued.

Name.	Class.	6 in.	4 in.	1 in.	1 1/2 in.	2 in.	3 in.	4 in.	Indicator.	Total.	Cubic feet.	Revenue.
<i>Amounts brought forward</i>		..	..	..	..	..	..	..	..	..	17,501,781	\$23,252 57
Harvard Primary School		..	..	1	..	..	..	..	..	1	95,100	142 65
Thomas Cunningham.....		..	..	1	..	1	..	..	..	2	248,453	372 68
Hallowell Granite Co.....		..	..	1	..	..	..	..	..	1	138,806	208 20
Hubbard & Blake.....		..	1	..	..	1	..	..	..	2	706,301	1,059 46
Tudor Co.....		1	..	..	..	..	..	..	..	1	11,995	18 00
Tucker Manufacturing Company.....		..	..	..	..	1	..	..	..	1	286,727	430 07
High School.....		..	..	1	..	..	..	..	..	1	14,627	21 94
Geo. H. Buxton.....		1	..	..	..	..	..	..	..	1	19,391	29 08
M. Rogan		1	..	..	2	..	..	..	..	3	155,453	233 17
Geo. D. Otis.....		1	..	..	..	..	..	..	..	1	38,329	57 49
Edmonds & Co.		..	..	1	..	..	..	..	..	1	46,368	69 55
D. H. Pattee & Co.		..	..	1	..	..	..	..	..	1	16,468	24 70
St. Francis de Sales Church		..	..	..	..	..	..	..	1	1	50,000	75 00
Davidson Rubber Co.		..	..	..	..	1	..	..	..	1	325,741	488 60
Kennan, French, & Co.....		..	..	1	..	..	..	..	..	1	146,522	219 78
Elwell, Brackett, & Hawes.....		1	..	..	..	1	..	..	..	2	152,705	184 04

J. T. Sawin.....	Stables.....	1	2	23,070	34 61
Brown, Pierce, & Co.	Factory	1	1	19,112	28 68
Wemyss Bros.	"	1	1	89,974	134 95
Stickney & Poor.....	"	1	1	47,299	70 94
George S. Hall.....	Currier	1	1	29,023	43 54
Owen Callahan.....	Currier	1	1	4,854	7 28
F. C. Sewall.....	Factory	1	1	19,341	29 01
Asbestos Packing Co.	"	1	2	95,839	143 76
Nathaniel Tufts	"	1	1	43,809	65 72
Robert Webb & Co.	"	1	1	14,562	21 84
Foundry Supply Co.	"	1	1	28,417	42 63
Anthony Waterman.....	Mill	1	2	278,962	418 45
Page & Littlefield	"	1	1	98,846	148 27
Powers, Melvin, & Co.	Grain Mill	1	1	188,813	283 22
Middlesex Railroad Co.....	Stable	2	6	397,949	596 93
John P. Barnard	"	1	1	99,289	148 93
Wm. S. & Geo. O. Wiley.....	"	1	1	34,436	51 65
Wm. S. & Geo. O. Wiley.....	"	1	1	67,324	100 98
T. J. Priest	"	2	2	59,313	88 97
Union Club Stable.....	"	1	1	23,995	35 99
Boston Ice Co.	"	1	1	20,852	31 28
Amounts carried forward.....				21,609,846	\$32,414 61

METER STATEMENT. — Continued.

Name.	Class.	Cubic feet.								Revenue.
		inch.	inch.	inch.	inch.	inch.	inch.	inch.	Total.	
Amounts brought forward.....		..	..	..	..	..	..	..	..	\$32,414 61
CHARLESTOWN DISTRICT. — Continued.										
George W. Maynard	Stable.....	1	..	..	..	..	..	..	1	56 65
Jesse Rideout	"	1	..	..	..	..	..	..	1	44 23
N. Y. Brintnall	"	2	..	..	..	..	..	..	2	39 79
H. T. Meserve	Boarding	1	..	..	..	..	..	..	1	25 61
Currier & Saunders	Stable.....	..	..	..	..	..	..	1	1	10 96
Cook, Rymes, & Co.....	Machinists	..	..	..	..	..	..	1	1	216 18
Johnson & Young.....	Lobster Boiler	1	..	..	..	..	..	..	1	76 37
Union Methodist Church	Organ.....	..	..	..	..	..	..	1	1	29 49
Joseph Gahm	Beer Bottling	..	..	..	..	..	..	1	1	61 89
Sebastian Gahm.....	Restaurant	1	..	..	..	..	..	..	1	48 20
J. C. Nichols.....	Storehouse and Wharf.....	..	..	..	..	..	1	..	1	33 89
S. P. Fuller	Building	1	..	..	..	..	..	..	1	7 04
Lyman Stickney	"	..	..	..	..	..	..	1	1	33 33
John Tibbetts	Stables.....	..	..	..	..	..	..	1	1	82 49
Robert E. Whittle.....	House and Stable	1	..	..	..	..	..	..	1	22 50

Holt & Wright.....	Stable.....	1	1	10,060	15 08
Burbank, Ryder, & Damon	Varnish Factory	1	1	4,730	7 09
A. C. Copeland.....	Stable.....	1	1	6,654	9 98
S. & R. J. Lombard	"	1	1	22,923	34 39
Scott & Co.....	"	1	1	4,264	6 39
City of Boston, Health Department.....	"	1	1	14,313	21 47
Knights of Pythias	Hall	1	1	6,989	10 49
J. A. Wellington & Co.	Wharf and Stable	2	2	35,241	52 87
National House .....	.....	1	1	22,996	34 50
Hoosac Tunnel Dock, and Elevator Co. ....	.....	1	3	541,048	811 57
J. A. Caswell	Stable.....	1	1	12,519	18 77
Prescott House.....	.....	1	1	19,465	29 20
Winchester Home.....	.....	1	1	40,153	60 23
Osgood & Hart.....	Foundry.....	1	1	42,576	63 86
Rand & Byam	Soap Works	1	1	32,608	48 91
J. T. Reed & Co.....	Dye Works	1	1	11,124	16 68
A. A. Rowe.....	Stable.....	1	1	10,067	15 09
G. G. Fox.....	Bakery and Stable.....	1	1	57,877	86 81
B. F. Holt	Stable.....	1	1	9,235	13 84
J. H. Pote & Co.....	"	1	1	12,076	18 11
Edward Page	Dentist	1	1	4,367	6 55
Amounts carried forward.....	.....	-	-	23,056,944	\$34,585 20

C. B. Goodrich & Son.....	Bakery and Houses	1	1	1	1	1	1	68,827	103 23
Bowditch & Cogswell.....	Machinist.....	1	1	1	1	1	1	15,527	23 29
W. S. & R. D. Waterhouse.....	Currier	1	1	1	1	1	1	14,333	21 49
Comestock, Gove, & Co.....	Stable.....	1	1	1	1	1	1	13,526	20 30
Alex. Mann.....	"	1	1	1	1	1	3	48,860	73 28
L. M. Hartwell.....	Stable.....	1	1	1	1	1	1	10,703	16 05
W. H. Murdock.....	"	1	1	1	1	1	1	14,869	22 30
Case & Dodge.....	"	1	1	1	1	1	1	14,855	22 27
Furbush & Co.....	Stable and Factory.....	2	2	2	2	2	2	63,350	95 03
Drivers' Union Ice Co.....	"	1	1	1	1	1	1	24,316	36 47
C. F. Newell.....	"	2	2	2	2	2	2	7,338	11 01
J. G. J. Mumler, Jr.....	Ice Cream Saloon.....	1	1	1	1	1	1	29,642	44 46
F. L. Savage	Stable.....	1	1	1	1	1	1	11,077	16 61
Cook Tree Protector Co.	"	1	1	1	1	1	1	5,217	7 82
David Lippi.....	Ice Cream Saloon.....	1	1	1	1	1	1	25,900	38 85
T. L. Bishop.....	Stable.....	1	1	1	1	1	1	8,923	13 38
M. Kelley.....	"	1	1	1	1	1	2	11,048	16 57
E. Gerry Brown	Printing Office.....	1	1	1	1	1	1	59,570	89 34
F. Bemis.....	Stable.....	1	1	1	1	1	1	4,241	6 35
J. N. Ayer.....	"	1	1	1	1	1	1	4,222	6 34
Wm. Litchfield.....	"	1	1	1	1	1	1	8,191	12 28
Amounts carried forward.....	.....	—	—	—	—	—	—	23,803,572	\$35,705 04

METER STATEMENT. — Continued.

Name.	Class.	Cubic feet.										Revenue.
		5 inch.	4 inch.	1 inch.	1½ inch.	2 inch.	3 inch.	4 inch.	Indicator.	Total.		
Amounts brought forward.....	.....	..	..	..	..	..	..	..	..	..	\$35,705 04	
CHARLESTOWN DISTRICT. — Continued.										23,803,572		
J. P. Tarbell.....	Stable.....	..	1	..	..	..	..	..	..	1	4,773 7 16	
H. Wood & Son.....	Cement Works.....	..	..	1	..	..	..	..	..	1	47,982 71 97	
C. E. Chase.....	Stable.....	1	..	..	..	..	..	..	..	1	3,524 5 28	
A. Towle & Co.....	"	..	..	1	..	..	..	..	..	1	40,509 60 76	
S. Murdock.....	"	1	..	..	..	..	..	..	..	1	7,307 10 95	
T. F. Bennett.....	Stable and House.....	1	..	..	..	..	..	..	..	1	20,989 31 48	
J. T. Parsons	Stable.....	1	..	..	..	..	..	..	..	1	11,800 17 69	
H. L. & G. P. Page.....	"	1	..	..	..	..	..	..	..	1	6,658 9 99	
J. P. Stewart & Co.....	Stable and Wharf.....	1	..	..	..	..	..	..	..	1	11,679 17 51	
A. Doyle	Hotel	..	1	..	..	..	..	..	..	1	71,146 106 71	
Allen & Moody.....	Stable.....	1	..	..	..	..	..	..	..	1	7,778 11 67	
T. B. Morrill	"	..	..	1	..	..	..	..	..	1	11,579 17 38	
Edmands & Hooper	Pottery	..	1	..	..	..	..	..	..	1	16,462 24 68	
Clinton White	Stable.....	..	1	..	..	..	..	..	..	1	6,813 10 22	
Palmer, Parker & Co.....	Mill.....	..	..	1	..	..	..	..	..	1	6,630 9 94	

[illegible]

Amounts carried forward.

A. A. Perry, Ag't.....	House and Stables.....	1	1	1	1	1	1	1	1	48,528	72 77		
L. H. Brown.....	Stable.....	1	1	1	1	1	1	1	1	48,446	72 67		
Somerville Iron Foundry.....	"	1	1	1	1	1	1	1	1	53,180	79 76		
D. Swan.....	Building.....	1	1	1	1	1	1	1	1	10,643	15 97		
Sam'l. Walker & Co.....	Oil Works	1	1	1	1	1	1	1	1	6,403	9 60		
F. Carl.....	Currier.....	1	1	1	1	1	1	1	1	2,344	3 52		
A. L. Sanborn.....	Stable.....	1	1	1	1	1	1	1	1	44,382	66 57		
Sturtevant Bros.....	Stable and Houses.....	1	1	1	1	1	1	1	1	42,181	63 26		
J. H. Bell.....	Factory	1	1	1	1	1	1	1	1	2,862	4 29		
W. K. Lewis Bros.....	Pickles.....	1	1	1	1	1	1	1	2	99,424	149 13		
Skilton, Foot, & Co.....	"	1	1	1	1	1	1	1	1	75,453	113 17		
Thomas Emerson.....	"	1	1	1	1	1	1	1	1	126,882	190 33		
Somerville Flour Mills.....	.....	1	1	1	1	1	1	1	1	38,622	57 93		
Fitchburg Railroad Co.....	.....	1	1	1	1	1	1	1	2	177,503	266 24		
H. M. Weld & Co.....	Stable.....	1	1	1	1	1	1	1	1	52,976	79 46		
J. P. Squires & Co.....	Slaughter-House	1	1	1	1	1	1	1	1	2,210,880	3,316 31		
Central Savings-Bank	Building	1	1	1	1	1	1	1	1	58,888	88 33		
Prescott School .....	.....	1	1	1	1	1	1	1	1	34,820	52 23		
Dr. J. A. Paine.....	Steam Shovel	1	1	1	1	1	1	1	1	7,334	11 00		
Amos Haynes.....	Vinegar Factory	2	2	2	2	2	2	2	4	143,125	214 68		
Sylvester & Co.....	Iron Foundry	1	1	1	1	1	1	1	1	71,612	107 42		
Amounts carried forward.....										6,205,601	24,597,781	\$9,308 25	\$36,896 27

METER STATEMENT. — Continued.

Name.	Class.	inch.	3/4 inch.	1 inch.	1 1/2 inch.	2 inch.	3 inch.	4 inch.	Indicator.	Total.	Cubic feet.	Revenue.
<i>Amounts brought forward.....</i>		..	..	..	..	..	..	..	..	..	6,205,601	\$9,308 25
<i>SOMERVILLE SUPPLY. — Continued.</i>											24,597,781	\$36,896 27
W. A. Sanborn & Co.....	Brick Yard	..	..	1	..	..	..	..	..	1	28,009	42 01
Union Railway Co.....	Stables.....	1	..	1	..	..	..	..	..	2	77,076	115 61
Reitenbeck Bros. & Mink.....	Curriers.....	..	..	1	..	..	..	..	..	1	67,828	101 75
American Tube Works.....	Factory	..	..	1	..	2	..	..	..	3	688,621	1,032 92
J. E. Ferris	Ice Cream Saloon.....	..	..	..	..	1	..	..	..	1	54,600	81 89
Som. Union Hall Building Co.....	Building	..	1	..	..	..	..	..	..	1	34,405	51 61
C. H. North & Co.....	Slaughter-House	..	..	..	..	..	1	..	..	1	1,554,334	2,331 49
E. A. Forster	Brick-Yard	..	1	..	..	..	..	..	..	1	32,794	49 19
J. Welde.....	Bakery	..	1	..	..	..	..	..	..	1	26,668	40 00
Miller Bros.....	Factory	..	..	1	..	..	..	..	..	1	39,959	59 94
Eagle Shade Roller Co.....	"	..	..	1	..	..	..	..	..	1	11,044	16 57
J. M. Thompson	Stable.....	1	..	..	..	..	..	..	..	1	9,856	14 78
G. W. Prichard	"	..	..	1	..	..	..	..	..	1	4,489	6 74
Charles-river Street Railway Co.....	"	..	2	..	..	..	..	..	..	2	24,093	36 13
New England Table Food Co.....	Factory	..	1	..	..	..	..	..	..	1	1,316	1 97

B. F. Shute	Duck Pond.....	1	12,341	18 51	13,361 99
Morse School.....	.....	2	28,554	42 83	
Police Station .....	.....	1	6,531	9 80	
CHELSEA SUPPLY. — 1881-82.			8,908,119		
Eastern Railroad.....	Station.....	1	51,577	77 36	
Boston Elastic Fabric Co.....	Rubber Works.....	2	374,483	561 72	
P. F. McDonough	Currier	1	64,438	96 65	
Thomas L. Appleton.....	Factory.....	1	66,884	100 32	
Sawyer Crystal Blue Co.	"	1	12,462	18 68	
J. W. Stickney.....	"	1	46,370	69 55	
Thomas Martin & Bro.....	Rubber Works.....	1	28,752	43 13	
C. F. Austin & Co.....	Bakery	1	21,218	31 82	
J. W. McDonald	Currier	1	45,177	67 77	
White, Holman, & Co.	Factory.....	1	7,031	10 54	
Thomas Cunningham, Est.	"	1	91,893	137 84	
J. B. Alley & Co.....	Tannery	1	150,605	225 90	
S. Chaddock	Pottery	1	1,347	2 02	
C. H. Carter & Co.	Stable.....	1	78,252	117 38	
John W. Barlett.....	"	1	34,771	52 15	
Lynn & Boston Railroad Company.....	"	2	148,729	223 09	
George Dyer.....	"	1	29,734	44 60	
Amounts carried forward.....			1,253,723	1,880 52	\$50,258 26

METER STATEMENT.—Continued.

Name.	Class.	Cubic feet.							Revenue.	
		1 inch.	2 inch.	3 inch.	4 inch.	Indicator.	Total.			
<i>Amounts brought forward.....</i>								1,253 723	33,505,900	\$1,880 52 \$50,258 26
<i>CHELSEA SUPPLY.—Continued</i>										
P. McCullough.....	Tannery	1					1	27,624	41 44	
J. J. White.....	Currier	1					1	18,599	27 89	
Cobb, Bates, & Yerxa.....	Store.....		1				1	18,730	28 09	
H. W. Ladd.....	Factory	1					1	49,271	73 91	
Magee Furnace Co.....	Foundry		1				3	265,462	398 19	
Winnisimmet Ferry Co.....	.....			1			1	446,421	669 62	
B. R. Cobb & Co.	Stable.....	1					1	21,972	32 96	
J. A. Tutien	"	1					1	35,934	53 90	
Chapman & Soden	Factory	1					1	12,635	18 95	
J. H. Wilkinson.....	Building		1				1	123,281	184 92	
Bisbee Iron Foundry.....	.....		1				1	76,169	114 25	
Boston Rubber Co.....	Factory		1				1	291,051	436 57	
G. B. Guild	Store		1				1	11,808	22 21	
United States of America	Marine Hospital.....			1			1	23,060	349 56	
United States of America	Naval Hospital.....				1		1	265,700	398 54	

City Hotel	Hotel.....	1..	1.	1.	1.	1.	1.	1.	83,330	124 99
Chelsea Gas Light Co.....	Gas Works	..	1.	1.	1.	1.	1.	1.	64,265	96 41
E. E. Sibley, Agent.....	Laundry	1.	1.	1.	1.	1.	1.	2.	598,202	897 30
Charles A. Campbell.....	Wharf and Stable	3.	1.	1.	1.	1.	1.	4.	80,284	120 42
Haskell Bros.	Foundry	1.	1.	1.	1.	1.	1.	1.	20,220	30 35
Eastern Elastic Gusset Co.	Factory.....	1.	1.	1.	1.	1.	1.	1.	37,383	56 07
Chelsea Webb Co.....	"	..	1.	1.	1.	1.	1.	1.	45,569	68 34
E. G. Robinson	Laundry	..	1.	1.	1.	1.	1.	1.	60,262	90 39
Saml. Cabot, Jr.....	Ammonia Works.....	1.	1.	1.	1.	1.	1.	1.	25,062	37 59
C. W. Curry & Co.....	Oil Works	1.	1.	1.	1.	1.	1.	2.	22,538	33 81
George E. Downes	Salt Works	1.	1.	1.	1.	1.	1.	1.	21,846	32 77
Hawthorn School.....	.....	..	1.	1.	1.	1.	1.	1.	22,600	33 90
A. S. Hodges	Foundry	1.	1.	1.	1.	1.	1.	1.	27,526	41 29
Phelps, Dalton, & Co.	Type Foundry	..	1.	1.	1.	1.	1.	1.	33,526	50 28
S. K. Lovewell.....	Machinist.....	..	1.	1.	1.	1.	1.	1.	13,444	20 16
W. A. Sylvester.....	Organ.....	..	1.	1.	1.	1.	1.	1.	1,900	2 85
W. H. Norris	Factory.....	..	1.	1.	1.	1.	1.	1.	7,547	11 32
W. L. Davis	Stable.....	..	1.	1.	1.	1.	1.	1.	4,691	7 04
Hawthorn Club Stable.....	"	..	1.	1.	1.	1.	1.	1.	18,040	27 06
John Linnehan.....	Hotel	..	1.	1.	1.	1.	1.	1.	19,226	28 84
George D. Emery	Mill.....	..	1.	1.	1.	1.	1.	1.	55,990	83 98
<i>Amounts carried forward.....</i>									4,417,891	\$6,626 68
									33,505,900	\$50,258 26

Amounts carried forward.

\$50,258 26

METER STATEMENT.—Continued.

Name.	Class.	8 in.	8 in.	1 in.	1 in.	1 1/2 in.	2 in.	3 in.	4 in.	Indicator.	Total.	Cubic feet.		Revenue.	
Amounts brought forward												4,417,891	33,505,900	\$6,626 68	\$50,258 26
CHELSEA SUPPLY.—Continued.															
Hollendar & Bradshaw.....	Stamping Works.....			1							2	37,506		56 26	
Loftus & Richardson	Oil Works			1							1	30,891		46 33	
J. H. Rogers & Co.	"	1									1	115,448		173 16	
E. M. Farnsworth.....	Factory	1									1	756		1 13	
E. L. & F. S. Rollins.....	Factory		1								1	4,074		6 11	
Gibbs & Sons	"			1							1	2,274		3 41	
EVERETT SUPPLY.—1881-82.													4,608,840		6,913 08
A. Cochrane & Co.....	Chemical Works								1		1	731,067		\$1,096 60	
David Washburn.....	Brick Yard.....			1			1				2	95,886		143 83	
E. B. Spaulding.....	"			1							1	18,766		28 15	
George A. Sammett	Greenhouse, etc.		1								1	13,256	858,975	19 88	1,288 46
Total													38,973,715		\$58,459 80

Statement showing the amount of water-rates received since the introduction of Mystic-pond water, November 29, 1864. Also the amount paid by the several districts supplied under existing contracts : —

	Amount received.	Paid under contract.	Net amount.	Total amount received.	Total amount paid under contract.	Net amount to Mystic Water Works.
Charlestown, 1865	\$27,045 10		\$27,045 10			
“ 1866	47,247 16		47,247 16			
“ 1867	60,188 83		60,188 83			
“ 1868	68,815 32		68,815 32			
“ 1869	74,369 81		74,369 81			
“ 1870	82,230 79		82,230 79			
“ 1871	87,259 70		87,259 70			
“ 1872	97,727 36		97,727 36			
“ 1873	99,455 66		99,455 66			
“ 1874	111,420 30		111,420 30			
“ 1875	118,568 00		118,568 00			
“ 1876	116,271 17		116,271 17			
“ 1877	109,963 25		109,963 25			
“ 1878	104,174 76		104,174 76			
“ 1879	98,313 88		98,313 88			
“ 1880	102,590 50		102,590 50			
“ 1881	106,927 90		106,927 90			
“ 1882	109,921 18		109,921 18			
“ May 1, 1883	76,659 89		76,659 89			
				1,699,150 56		\$1,699,150 56
East Boston, 1870	\$54,885 28	\$15,015 06	\$39,870 22			
“ 1871	63,371 71	18,348 73	45,022 98			
“ 1872	70,957 40	21,383 02	49,574 38			
“ 1873	77,480 79	23,992 38	53,488 41			
“ 1874	77,776 91	24,122 83	53,654 08			
“ 1875	70,256 26	21,102 53	49,153 73			
“ 1876	72,046 78	21,818 74	50,228 04			
“ 1877	66,637 43	19,655 03	46,982 40			
“ 1878	65,088 96	16,535 63	48,553 33			
“ 1879	56,165 94	32,139 10	24,026 84			
“ 1880	50,973 39	10,889 36	40,084 03			
				725,640 85	\$225,002 41	500,638 44
Amounts carried forward				\$2,424,791 41	\$225,002 41	\$2,199,789 00

	Amount received.	Paid under contract.	Net amount.	Total amount received.	Total amount paid under contract.	Net amount to Mystic Water Works.
<i>Amounts brought forward</i>				\$2,424,791 41	\$225,002 41	\$2,199,789 00
Chelsea, 1868 (6 mos.)	\$3,632 80	\$544 92	\$3,087 88			
" 1868-69	19,548 14	2,932 22	16,615 92			
" 1869-70	26,474 26	4,294 85	22,179 41			
" 1870-71	31,161 56	5,290 39	25,871 17			
" 1871-72	38,714 16	7,178 54	31,535 62			
" 1872-73	42,239 50	8,171 85	34,067 65			
" 1873-74	45,169 46	9,050 85	36,118 61			
" 1874-75	50,644 51	10,757 90	39,886 61			
" 1875-76	50,934 20	10,873 66	40,060 54			
" 1876-77	49,893 35	10,468 02	39,425 33			
" 1877-78	49,496 59	10,348 99	39,147 60			
" 1878-79	50,368 45	10,647 79	39,720 66			
" 1879-80	51,785 24	11,214 09	40,571 15			
" 1880-81	54,990 65	12,496 26	42,494 39			
" 1881-82	57,535 56	13,514 23	44,021 33			
" May 1, 1883	59,441 73	14,276 70	45,165 03			
				682,030 16	142,061 26	539,968 90
Somerville, 1869 (6 mos.)	\$6,572 62	\$985 89	\$5,586 73			
" 1870	13,189 89	1,978 49	11,211 40			
" 1871	20,029 68	3,005 94	17,023 74			
" 1872	25,275 13	4,055 02	21,220 11			
" 1873	30,930 81	5,232 70	25,698 11			
" 1874	37,325 96	6,831 48	30,494 48			
" 1875	47,912 43	9,873 73	38,038 70			
" 1876	49,743 55	10,423 08	39,320 47			
" 1877	49,873 19	10,461 97	39,411 22			
" 1878	53,581 31	11,932 52	41,648 79			
" 1879	54,329 13	12,231 65	42,097 48			
" 1880	56,988 65	13,295 45	43,693 20			
" 1881	65,394 32	16,657 73	48,736 59			
" 1882	69,656 63	18,362 65	51,293 98			
" May 1, 1883	57,775 98	13,610 40	44,165 58			
				638,579 28	138,938 70	499,640 58
<i>Amounts carried forward</i>				\$3,745,400 85	\$506,002 37	\$3,239,398 48

	Amount received.	Paid under contract.	Net amount.	Total amount received.	Total amount paid under contract.	Net amount to Mystic Water Works.
<i>Amounts brought forward</i>				\$3,745,400 85	\$506,002 37	\$3,239,398 48
Everett, 1872-73	\$3,603 34	\$540 51	\$3,062 83			
" 1873-74	4,365 84	654 88	3,710 96			
" 1874-75	4,677 58	701 63	3,975 95			
" 1875-76	5,861 80	879 28	4,982 52			
" 1876-77	6,548 38	982 26	5,566 12			
" 1877-78	7,401 99	1,110 29	6,291 70			
" 1878-79	7,429 06	1,114 36	6,314 70			
" 1879-80	7,642 05	1,146 33	6,495 72			
" 1880-81	8,329 87	1,249 47	7,080 40			
" 1881-82	8,868 48	1,330 29	7,538 19			
" May 1, 1883	9,470 73	1,420 62	8,050 11			
				74,199 12	11,129 92	63,069 20
Total to May 1, 1883				\$3,819,599 97	\$517,132 29	\$3,302,467 68

Respectfully,

JOSEPH H. CALDWELL,
Mystic Water Registrar.

REPORT OF THE SUPERINTENDENT OF THE WESTERN DIVISION.

CHESTNUT HILL RESERVOIR, May 1, 1883.

LEONARD R. CUTTER, Esq., *Chairman Boston Water Board*: —

SIR, — In compliance with a rule of the Board, I submit herewith the annual report of the Western Division for the past official year: —

SUDBURY-RIVER BASINS.

With the exception of a few weeks' time in the midsummer of 1882 the water in the Sudbury river has been good in quality throughout the year.

Algæ in considerable quantities made their appearance in Basin Nos. 1 and 3, as usual. They were at their worst during the last of July. In August a large amount of loam and muck was removed from Basin No. 2. The unusual drought of the present fiscal year, January 1 to May 1, 1883, has given a very small flow in the Sudbury. Our average rainfall for the first four months of the year is about fifteen inches, and we are now five inches below this average. A large proportion of the surplus water of the river has been used to fill Lake Cochituate. These are the principal facts in regard to the Sudbury supply. A more detailed account will be found under each basin.

BASIN 1.

On May 1, 1882, the surface of the water in this basin stood at elevation 159.59 above tide marsh, with water wasting over the flash-boards. Waste continued until June 25. On July 26 a portion of the supply was taken from this source; but on August 6 the gates were shut, at which time the grade of the surface was 155.11. This height was maintained with slight changes until February 17, when the flood-gates were opened and the surface fell to 147.10 on February 24, which was the lowest point reached during the year. A few days later the basin was filled, and water

wasted over the crest of the dam, which has continued in varying quantities to the present time. The experiment was tried this year of running all the supply of the city through Basin 1 until it became evident that the water was deteriorated by the process, when the supply was changed June 29 to Basin 2. During the remainder of the year, with the exception above alluded to, viz. : July 26 to August 6, the water of this basin was used only for the supply of the river with the $1\frac{1}{2}$ millions per day which we are obliged by law to waste into the bed of the stream.

BASIN 2.

Water has been drawn directly from this basin for the supply of the city from June 29 to July 27, from August 5 to September 2, from September 12 to September 14, from September 29 to November 24, and from December 27 to March 21. On May 1, 1882, the surface was at elevation 167.34, and water was wasting over the flash-boards. This waste continued until June 29, when the basin was drawn upon and the surface fell steadily during the month of July until it reached grade 152.00, at which elevation it was kept while the excavations in the bottom were in progress. On September 14 the gates were shut, and the basin allowed to fill. On September 29 the surface had risen to 163.06, when it was again drawn upon for the supply. During the middle of February the basin filled rapidly, and on the 20th water began to run over the dam, and so continued to the present date. Besides the ordinary care and maintenance of the basin a great improvement was made around the margins by the removal of about nine thousand cubic yards of loam and muck, besides innumerable stumps, etc. The greater part of this muck was removed from that portion of the basin situated between the old Cutler mill site and the wooden dam and from two coves near Mr. Nevins' property. Advantage was taken of the low state of the water to repair the slope paving in several portions of the basin.

During the winter, the men, when not otherwise employed, have built a wall along Union street, in Ashland, with stones principally removed from the upper end of the basin. A settlement in regard to a right of way to Dam 2 has been effected, and as soon as a road can be constructed through the Merriam farm the way will be available. With the exception of the maintenance of the existing structures connected with Basin 2 no other work of importance has been done at this point during the year.

BASIN 3.

On May 1, 1882, this basin stood at elevation 175.42, and water was running over the dam. Waste stopped on June 29. The surface of the water was kept at about the level of the overflow until July 22, when the water was drawn for the supply of the city. The lowest point reached during the year was grade 167.07, on Dec. 27, when the gates were shut and the basin filled to the top of the dam on Feb. 18. A small amount of water has been wasted from that date to the present time. The elevation of the surface is now 175.43. Water has been drawn from this basin from July 22 to July 27, from Aug. 5 to Aug. 12, from Sept. 15 to Sept. 29, and from Nov. 24 to Dec. 26. *Algæ* were first noticed on July 2. By the middle of July they were found more plentifully. The water at the surface appeared to be of good quality to the taste while at a depth of 11 feet neither the odor nor the taste, was good. An improvement took place in the lower strata of water, and by the end of the first week in August the odor and taste were not offensive. An examination of the water in Whitehall pond, made on August 10, showed the same state of affairs as in Basin 3. The pond was about 2 feet below high-water mark. At the surface the water had a pondy taste, and at a depth of 20 ft. the odor was offensive. *Algæ* were found all through the water, but not in large quantities. It was found, when we were drawing from the surface of Basin 3, that the improvement of the upper layer of water did not keep pace with the lowering of the surface. The good water was about 6 feet in depth, when the gates were opened, and when the water had been drawn down 1.4 feet, the good water was about 5 ft. in depth. By Sept. 20 the water at the bottom of Basin 3 was good; but *algæ* were found at lower depths, which had not been observed before. No new work has been done during the year on this basin. The grounds, gate-houses, and iron-work have been kept up to the usual standard, and are now in excellent order. The regular basin force has assisted at the cleaning of the aqueducts.

FARM POND.

This pond has been kept at about high-water mark during the entire year. The highest elevation of the surface was on September 24, 149.52, the lowest on August 24, 148.21. No recurrence of the cucumber taste has been noticed in the water during the year. The gate-houses and other structures are in good order.

LAKE COCHITUATE.

On May 1, 1882, the surface of the lake stood at elevation 133.84, within 6 inches of high water. The lake having risen to 134.36 on the 22d, the stop-planks were removed from the dam, and water was wasted until the last of the month. No more water has been wasted during the year. As usual, during the summer, the surface of the water gradually lowered as the lake was drawn upon, until January 20, 1883, when the lowest point of the year was reached, viz., elevation 125.89, a little less than five feet above the invert of the aqueduct. This was about one foot lower than the lowest point reached the preceding year. On the last day of March the lake was still nearly six feet below high-water mark. There were comparatively no spring rains, and a season of unusual drought set in. It became apparent that the lake would not fill from its own water-shed. The surplus water of the Sudbury river was therefore used for filling the lake, and during the month of April nearly one billion of gallons have been run into Course brook from the Sudbury conduit. The surface now stands at elevation 133.71. The quality of the water has been excellent during the entire year. There having been no recurrence of the cucumber taste, the water has been run continually, with the exception of a few days for repairs. No new work has been done at the lake during the year. It will be necessary soon to take steps towards the relocation of the keeper's house. I should recommend an entire removal of the buildings from their present site to a point nearer the gate-house; and, also, that the city farm at the lake, together with some other land for which the city is now taxed by the town, and which are of no present or prospective benefit, be sold, reserving the usual margin around the borders for protection of the water. The Dug and Pegan meadows have been kept flowed during the year. No water has been drawn from Dudley pond.

THE SUDBURY-RIVER AQUEDUCT.

This structure has been in service during the entire year. It has brought to the city an average of 18,900,000 gallons daily. In June, 1882, the interior was swept from Farm pond to Bacon's Waste-weir. Sept. 13 and 14, from Farm pond to Station 49, and from Bacon's Waste-weir to Station 343. Nov. 8, 9, and 10, from Clarke's Waste-weir to Terminal Chamber. Dec. 12 and 13 from Farm pond to Charles-river bridge, and

at this time the accumulations of lime in the upper ends of the aqueduct were scraped off as thoroughly as possible. The embankment in Sherburn swamp, at Durant's, and at Waban bridge have received exterior loaming and sodding and all the embankments along the line have been maintained, and are now in good order. A little over two miles of fencing have been put up during the year, at a cost of $10\frac{1}{2}$ cts. per running foot. In December a series of levels was run through the highest embankments on the line, viz., the Waban embankment, the Almshouse embankment, and Hurd's embankment, to determine what the settlement had been since 1877. The only settlement worth noticing was in the centre of Hurd's bank, where the maximum amount was at one point $\frac{3}{4}$ of an inch. The embankment at this point is 50 feet in height. The gate-houses, culverts, and waste-weirs are in excellent order.

THE COCHITUATE AQUEDUCT.

Five and one-half feet of water were run in this structure from May 1 to June 10, when the head was raised to 7 feet. This amount was run until July 6, when the amount was reduced to five feet. On August 12 the flow was raised a foot and increased another foot on August 31, and still another foot on September 6, or 8 inches above the arch. On September 11 the head was slightly reduced, owing to the falling of the surface of the lake, and to October 4 the level followed the falling of the lake. From October 4 to December 1, $5\frac{1}{2}$ feet of water were run, and from December 1 to February 25 varying levels were run, according to the height of the lake. On the latter day the surface of the water, having risen sufficiently, the old flow of $5\frac{1}{2}$ feet was resumed, and continued to the present date. The water has been shut off but once during the year, viz., from January 22 to January 26, for the purpose of cleaning the interior. This was done in a thorough manner, from the gate-house at the lake to the Brookline reservoir. The sponge had not grown to any extent since the last cleaning, but it was found in small patches growing in the first mile of the aqueduct. At the same time a series of measurements of heights and widths was made throughout the whole length, by several engineering parties, for purposes of comparison with previous years. No change in the form of the aqueduct since last year has been detected. The only work done on the exterior has been the pointing of the siphon chambers, the road arch at Newton Lower Falls, and the Charles-river bridge. The latter had not been done for a great many years, and the work was executed in a

complete manner by cutting out all joints and running in cement as deep as tools would reach. No opportunity for repairs on the interior has presented itself during the year.

CHESTNUT-HILL RESERVOIR.

The disease among the horn pouts, referred to in my report of 1880, still continues, and they should be seined out. The water has not been shut off during the whole year. The usual meteorological and other observations have been taken during the year. The grounds and drives and walks are in excellent order, as are also the gate-houses and other appliances connected with the works. A table of rainfall at this point is appended.

BROOKLINE RESERVOIR.

The grounds and structure connected with this reservoir are in good order. No new work has been done at this point during the year.

Very respectfully,

DESMOND FITZGERALD,

Superintendent.

LIST OF CITY PROPERTY ON THE WESTERN
DIVISION.

1883.

CHESTNUT-HILL RESERVOIR.

Effluent Gate-House.

1 hand-pump, 1 12-ft. ladder, 3 wrenches, 100 ft. of hose, 120 ft. gas-pipe, 1 rattan-broom, 1 set evaporation apparatus, 4 stop-plank hooks, 1 blow-off wrench, 2 gate wrenches, 32 ft. gal. chain, lock, etc., 1 fountain nozzle, 33 stop-planks, 1 step-ladder, 5 pictures, 1 gauge, 1 thermometer, 1 broom, 2 brushes and dust-pan, 2 lanterns, hydraulic apparatus, 1 settee, 1 mat, 1 nozzle, 3 oil-cans and tunnel, 1 scrubbing-brush, 1 sponge, 1 window-brush, 2 wire scoops, 2 wrenches.

Terminal Chamber.

1 broom, 1 settee, 1 dust-pan and brush, 1 coal-box, 1 20-ft. ladder, 1 boat, 1 step-ladder, 2 lanterns, 1 duster, 3 oil-cans, 1 pair rubber boots, 1 iron rake, 1 mat, 2 stop-plank hooks, 25 stop-planks, 1 wire scoop.

Intermediate Gate-House.

18 stop-planks, 1 wrench.

Influent Gate-House.

26 long stop-planks for conduit, 14 stop-planks, 4 hooks, 1 extra brass screw.

Office.

1 safe, 3 desks, 6 chairs, 3 stools, 5 pictures, 2 telegraph instruments, 2 sets scales, 1 stove, 2 reflecting lanterns, 6 lanterns, 22 brooms, 1 hook-gauge, 2 inkstands, 2 thermometers, 2 copper pans, 8 tumblers, 1 kettle, 42 pairs rubber boots, 8 rubber coats, 8 gauging-floats, 1 drawing-table, 1 sink, pump, wash-basin, and 4 towels, 1 automatic rain-gauge, 1 bookcase, 1 barometer, 1 fire-extinguisher, 15 locks.

Tool-House.

$\frac{1}{2}$ box glass, 1 copper elbow, 44 galls. lard oil and cans, 4 galls. kerosene oil and cans, 12 bird-houses, 115 conduit reflectors, 3 screen doors, 50 lbs. waste, 70 boxes candles,

8 bars soap, $\frac{3}{4}$ gross matches, 22 paint-brushes, 1 chimney-brush, 8 white-wash brushes, 3 rolls wicking, 2 ice-chisels and hooks, 1 ice-saw, 2 glass floats, 2 Johnson pumps, 12 window-screens, 1 water-tank, 2 rain-gauges, 2 horse-bonnets, 2 shades, 5 draft-chains, 8 striking-hammers, 8 sledge-hammers, 2 paving-hammers, 5 small stone-hammers, 5 axes, 4 screen-bars, 15 iron bars, 20 square shovels, 44 round pointed shovels, 8 snow-shovels, 3 scufflers, 47 picks and handles, 4 grub-axes, 16 trowels, 4 rifles, 1 lot of cord, 38 hoes, 2 $1\frac{1}{2}$ -bu. baskets, 1 4-bu. basket, 1 pruning-saw and knife, 2 border-knives, 1 beadle, 7 paving-rammers, 1 root-puller, 6 manure-forks, 1 limb-cutter, 1 gaff-hook, 25 ft. wire fence, 2 pulleys, 12 drills, 1 copper tamping-rod, 1 iron spoon, $\frac{1}{2}$ can palm-oil, 30 lbs. oakum, 4 doz. hay-caps, 1 writing-desk, 1 cross-cut saw, 9 tin dippers, 7 pails, 2 heavy buckets, 1 hay-knife, 1 grate, 1 keg powder, 100 ft. fuse, 11 spades, 4 grass-hooks, 2 watering-pots, 3 feed-baskets, 37 rattan brooms, 7 snaths, 12 iron rakes, 9 wooden rakes, 15 hay-forks, 2 hay-ropes, 1 oil-cabinet, 30 lbs. axle-grease, 4 rubber blankets, 18 kegs nails, 6 plough-points, 1 cement-testing-machine, 200 ft. of hose, 15 scrubbing-brushes, 9 spading-forks, 2 coal-shovels, 2 sets falls, 1 lot of rope, 2 painter's jacks, 2 spare boxes for gates at Br. Res., 800 lbs. lead, 1 wood-saw, 1 jack-screw, 110 lbs. paint, 1 gall. Japan, 1 sand-pump.

Old Blacksmith's Shop.

1 observatory and instruments, 4 pieces canvas, 1,000 shingles, 1 flume, 1 post-spoon, 1 iron-cover, 3 bbls. Portland cement, 4 bbls. American cement, 5 galls. black-oil, 1 lot crusher-plates, 1 large screen, 12 signs, 1 iron bedstead, $\frac{1}{2}$ bbl. paint, 1 manhole-grate, 5 galls. red paint, 1 house force-pump, 1 lot of chains, 3 stoves, 5 galls. paraphine varnish, 2 galls. tar.

Stable.

6 horses, 3 pigs, 7 horse-blankets, 2 sets double harness, 1 hay-rigging harness, 2 express harnesses, 2 driving harnesses, 7 halters, 4 cart harnesses, 1 harness-pan, 3 galls. neat's-foot oil, sleigh-bells, 6 surcingles, 1 stove, 1 stable-sponge, 5 curry-brushes and combs, 1 set leak-chains, 1 hay-cutter, 200 bu. oats, 200 lbs. shorts, 18 tons hay, 1 broom, 1 open buggy, 1 covered buggy, 1 wolf and lap-robe, 1 duster, 1 jack, 1 watering-pot, 1 whip, 1 fork, 24 stop-planks, 7 ft. 6 in. long, 80 stop-planks, 7 ft. long, 4

mortar and 19 brick-hods, 1 wooden pump and California pump-belt, cast-iron pipe and 4 elbows, 2 boats, 1 fire-extinguisher, 8 bu. cracked corn.

Blacksmith's Shop.

1 forge, 1 anvil, 1 set tools, 2 vises, 1 breast-drill, 3 stock-dies and taps, 1 ratchet and drill, 75 lbs. iron, 200 lbs. scrap-iron, 4 pairs pipe-tongs, 2 solid die-plates, 50 ft. steam-pipe, 2 cold-chisels, 2 monkey-wrenches, 1 soldering-iron, 1 rivet-cutter.

Carpenter's Shop.

1 stove, 1 clock, 3 hand-saws, 1 panel-saw, 1 bit-stock and bits, 1 level, 8 planes, 8 augers, 1 pair dividers, 6 chisels, 1 axe, 2 gauges, 1 water-tank, 1 lot of screws, 2 hammers, 1 compass-saw, 1 fence-wrench, 2 ladles, 2 rubber belts, 2 jack-screws, $\frac{1}{2}$ bbl. boiled linseed-oil, $\frac{1}{2}$ bbl. raw linseed-oil, 5 galls. spirits turpentine, 1 galv. chain and pulley, 1 belt-stretcher, 1 rotary pump, 1 ton hard coal, 2 tons soft coal, 1 Blake pump, portable boiler, 1 feed-pump, 1 portable engine, 1 glue-pot, 12 hand-screws, 1 truck.

Yard.

1 12-horse-power engine, 1 portable building and shed, 2 cans, 78 ft. 4-in. suction-pipe, 1 piece lead suction-pipe (siphon), 30 ft. 5-inch suction-pipe, 17 ft. 8-inch suction-pipe, 3 ft. 30-inch drain-pipe, lot of land tile, 15 fire-buckets, 1 carry-all, sleigh, 1 express wagon, 1 2-horse wagon, 4 carts, 2 water-carts, 1 hay wagon, 2 2-horse sleds, 1 2-horse truck, 1 road roller, 1 pair large wheels, 2 mowing wheels, 4 roller wheels (1 horse-power), 2 hand-carts, 2 hand-rollers, 2 sets lead bars, 1 garden-engine, 2 jacks, 2 conduit forms, 1 step-ladder, 1 30-ft. ladder, 1 28-ft. ladder, 3 20-ft. ladders, 1 18-ft. ladder, 1,200 ft. plank-walk, 1 2-horse-cart, 1,200 bricks, 2 loads sand, 1 lot cast-iron grates, 1 lot of clay, 1 scraper, 2 snow-ploughs, 1 plough, 1 harrow, 1 hay-tedder, 55 granite bounds, 1 rain-gauge, 6 gravel-screens, 15 wheelbarrows, 115 pickets, 2 grindstones, 2 engines and pumps, 4 boilers, 200 ft. spruce boards, 300 ft. spruce plank, 800 ft. spruce sheeting, 400 ft. spruce fence boards, assorted lot of old lumber, 200 bolts, assorted sizes; 4 bbls. spikes, 7 and 10 inches long and $\frac{1}{2}$ -inch square; pair of balance-wheels and castings for Blake crusher, 22 cords of wood.

Brookline Reservoir.

1 writing-desk, 2 keys, 1 book, 1 inkstand, 1 pitcher, 1 tumbler, 1 spittoon, 1 lantern, 1 stove and 32 feet of pipe, 2 elbows, 1 coal-hod, shovel and 2 pokers, 1 stove-brush, 2 settees, 1 chair, 2 towels, 2 floor-mats, 1 pair rubber boots, 1 scythe, 1 pick, 3 shovels, 2 rakes, 1 hoe, 1 sickle, 1 scuffler, 1 spade, 2 pails, 1 rammer, 1 cold-chisel, 4 notices, 1 iron ladder, 1 ladder, 1 step-ladder, 1 bar, 3 thermometers, 5 locks, 1 key, 1 sponge, 1 pair clipping-shears, 1 dust-pan and brush, 1 duster, 1 bushel basket, 1 wheelbarrow, 1 broom, 1 stove-brush, 1 dust-brush, 1 rattan broom, 1 border-knife, 2 scrubbing-brushes, 1 watering-pot, 1 axe, 1 gauge, 1 40-inch gate-key, 2 36-inch gate-keys, 1 30-inch gate-key, 2 wheels, 1 wrench, 1 cover, 1 air-cock wrench, 1 gate-frame, 2 chamber-wheels, 1 crank, 89 stop-planks, 3 gas-fixtures, 8 screens, 4 iron rods, 2 screen doors, 6 window screens, 4 48-inch connection keys, 1 wrench, 1 iron cover, 1 wooden cover, 2 regulation-notices, 1 wire scoop, 2 oil-cans, 1 hammer.

Lake Cochituate.

1 air-tight stove, 12 dining chairs, 1 extension table, 1 parlor table, 1 mirror, 1 horse, 1 express wagon and harness, 1 carryall and harness, 1 cart and harness, 2 sets scales, 1 rain-gauge, 3 picks, 1 long-handle shovel, 1 long-handle spade, 3 round-pointed shovels, 3 square-pointed shovels, 2 sickles, 2 hoes, 3 wrenches, 1 saw, 4 axes, 1 grub-axe, 1 sand-sieve, 2 gravel-screens, 3 whitewash brushes, 32 stop-planks, 4 stop-plank hooks, 4 ox-chains, 4 iron rakes, 2 wooden rakes, 2 hay-forks, 1 map, 1 rubber hose, 1 boat, 4 oars, 3 pair long rubber boots, 2 ice-chisels, 1 screw-driver, 1 hand-hammer, 1 striking-hammer, 5 drills, 5 points, 1 pair hedge shears, 1 bil-hook, 2 manure-forks, 4 bars, 1 12-inch pump (1 8-inch pump) 175 chestnut posts.

Farm Pond Gate-House.

1 stove, stove-pipe, and hod, 1 dust-pan and brush, 1 piece zinc, 1 bag waste, 1 broom, 1 hammer, 1 screw-driver, 2 screw-bars, 3 wrenches, 2 gate-handles, 1 screen, brush, and rake, 9 pair rubber boots, 1 shovel, 1 step-ladder, 1 chair, 1 11-ft. ladder, 1 22-ft. ladder, 1 table, 56 stop-planks, 2 stop-plank hooks, 3 lanterns, 5 lamps, 2 boxes candles, 1 wood and coal box, 1 box rottenstone, 1 tin pan, stove blacking and brush, 1 oil-cup, 2 pails, 1 yard linen, 1½ tons coal, 1 piece rope, 1 mat, 3 oil-cans, 1 closet, 1 boat and fixtures.

Tool-House at Office, South Framingham.

4 axes, 7 shovels, 1 spade, 2 snow-shovels, 2 iron rakes, 2 ice-chisels, 1 manure-fork, 1 hoe, 1 bar, 3 picks, 3 grub-axes, 1 ice-hook, 2 sledge-hammers, 1 wheelbarrow, 1 mortar-hod, 1 stove and pipe, 1 scythe and snath, 3 oil-cans, 3 reflectors, 2 galls. kerosene oil, 2 stone-hammers, 2 pails, $\frac{3}{4}$ ton coal, $2\frac{1}{2}$ kegs nails, 1 tool-chest, 3 saws, 1 level, 2 planes, 2 bit-stocks, 4 augers, 1 steel square, 1 bevel, 1 hammer, 1 trowel, 1 wrench, 1 wood-saw, 1 watering-pot, 3 brooms, 1 rammer, $\frac{1}{2}$ barrel American cement.

Course Brook Waste-Weir.

2 shovels, 1 iron rake, 1 wooden rake, 1 scythe and snath, 1 sickle, 1 whetstone, 2 drills, 3 chisels, 2 cape-chisels, 1 hand-hammer, 2 grub-axes, 4 pieces rope, 1 oil-cup, 1 ice-cutter, 2 wheelbarrows, 1 cement-box, 1 pick, 1 broom, 1 spade, 26 stop-planks, 6 stop-plank hooks.

Bacon's Brook Waste-Weir.

2 wheelbarrows, 1 shovel, 1 spade, 1 pick, 1 grub-axe, 1 iron rake, 2 sickles, 1 whetstone, 1 ice-cutter, 1 oil-cup, 1 broom, 14 boxes candles, 20 stop-planks, 4 stop-plank hooks, 2 pails, 1 piece of rope.

Rosemary Brook Blow-Off.

1 gate-wrench, 1 ladder.

Fuller's Brook Waste-Weir.

3 shovels, 2 wooden rakes, 1 ice-cutter, 1 broom, 20 stop-planks, 4 stop-plank hooks.

Tool-shed, near Fuller's Waste-Weir.

4 wheelbarrows, 1,000 hard bricks, 2 portable sheds, lot of old lumber.

West Siphon Chamber.

9 pair rubber boats, 1 rubber coat and cap, 2 sand-sieves, 1 mud-digger, 1 smoothe-edge, 1 10-ft. pole, 1 50-ft. measure, 9 cape-chisels, 1 jointer, 7 tamping-rods, 1 roll lead, 6 bags, 1 chain, 4 spades, 1 manure-fork, 5 shovels, 4 bush-scythes and snaths, 1 sickle, 1 whetstone, 1 scythe and 2 snaths, 1 lantern and 2 globes, 3 oil-cans, 3 hoes, 3 iron

rakes, 11 reflectors, 1 ice-cutter, 1 ice-saw, 12 brooms, 1 auger, 1 hammer, 1 saw, 1 oil-cup, 2 bars, 1 hay-fork, 2 grub-axes, 1 trowel, 1 striking hammer, 1 axe, 1 pick, 3 locks, 9 points, 2 chisels, 2 hand-hammers, 1 cement-box, $\frac{1}{2}$ keg nails, 21 boxes candles, 1 bbl. American cement, 2 wooden horses, 3 ladders, 52 stop-planks, 4 stop-plank hooks, 1 wheelbarrow, 2 paint-cans, 1 dust-pan and brush, 1 scrubbing-brush, 1 stool, 1 pail, 1 mat, 3 iron hooks, 3 paint-brushes, 1 crack tester, 5 notices, 8 pieces iron, 11 slates.

East Siphon Chamber.

1 iron rake, 1 wooden rake, 2 picks, 2 grub-axes, 4 shovels, 3 wheelbarrows, 1 ladder, 1 coal-hod, 1 broom, 1 wooden square, 3 sickles, 1 piece rope, 1 iron hook, 52 stop-planks, 2 stop-plank hooks, 1 spade, 1 scythe and snath, 1 wrench, 1 whetstone, 1 pair rubber-boots, 1 jug.

Clark's Waste-Weir.

2 wheelbarrows, 3 shovels, 2 picks, 1 grub-axe, 1 iron rake, 1 oil-cup, 1 pail, 1 broom, 20 stop-planks, 4 stop-plank hooks.

Basin 1.

45 flash-boards, 110 stop-planks, 1 step-ladder, 1 stove, 1 coal-hod, 1 poker and kettle, 1 floor-brush, 1 dust-brush, 1 broom, 2 pails, 1 stove-brush, 1 tumbler, 1 dipper, 1 lantern, 2 oil-cans, 2 oilers, 1 feather-duster, 2 wrenches, 1 axe, 1 hammer, 2 snow-shovels, 2 ice-chisels, 2 branding-irons, 2 packages stove-blackening, 1 closet, 1 coal-bin, $\frac{1}{2}$ ton coal, 1 bushel basket, 1 ratchet, 2 boat-hooks, 1 28-ft. ladder, 1 12-ft. measuring-rod, 1 boat, 1 sponge, 1 ash-sifter.

Basin 2.

42 flash-boards, 94 stop-planks, 1 pair steps, 1 stove, 1 coal-hod, poker and kettle, 1 ash-sifter, 1 ratchet, 2 wrenches, 1 12-ft. and 1 20-ft. measuring-rod, 3 sets stop-plank hooks, 2 small iron hooks, 2 snow-shovels, 2 ice-chisels, 1 boat, 1 sponge, 1 28-ft. ladder, 2 lanterns, 1 oiler, 2 oil-cans, 1 hammer, 2 branding-irons, 1 axe, 1 floor-brush, 1 feather-duster, 1 dust-brush, 1 stove-brush, 1 broom, 2 pails, 1 closet, 1 shovel, 1 coal-bin, $\frac{1}{2}$ ton coal, 1 bushel-basket, 2 snow-shovels, 1 pair steps, 1 2-ft. wooden scale.

Basin 3.

98 stop-planks, 1 step-ladder, 1 30-ft. ladder, 3 sets stop-plank hooks, 1 pair small iron hooks, 2 ice-chisels, 1 ratchet, 2 pike-poles, 1 12-ft. measuring rod, 1 stove, poker, and hod, 1 ash-sifter, 1 kettle, 2 wrenches, 1 feather-duster, 1 shovel, 1 axe, 2 pails, 3 oil-cans, 1 snow-shovel, 1 broom, 1 floor-brush, 1 hammer, 1 tumbler, 1 dipper, 3 oilers, 1 scrubbing-brush, 1 lantern, 1 stove-brush, 1 package blacking, 1 coal-bin, $\frac{1}{2}$ ton coal, 1 closet, 1 2-bushel basket, 1 2-ft. wooden scale, 1 thermometer, 1 boat, 2 branding-irons, 1 sponge.

Temporary Dam.

40 flash-boards, 29 stop-planks, 1 bulkhead, 2 gates for measuring the flow, 4 stop-plank hooks, 3 barrels, 1 hammer, 1 dipper, 1 tumbler, 1 measuring-rod, 1 coil coarse wire, 1 ice-chisel, 1 axe, 1 grub, 1 step-ladder, 1 mattress, set of blocks and fall, 1 registering apparatus, 1 desk, 2 iron hand-hooks.

Tool-House at Basin 3.

3 horses, 1 buggy, 2 express-wagons, 1 hay-wagon, 1 cart, 1 set bob-sleighs, 2 sets express-harness, 1 cart-harness, 1 buffalo robe, 4 horse-blankets, 2 halters, 2 surcingles, 2 currycombs and brushes, 1 jack, 1 wrench, 2 ice-saws, 2 cross-cut saws, 2 hand-saws, 1 grindstone, 1 stump-pulley, 2 doz. picks, 3 doz. pick-handles, 1 doz. old picks, 6 grub-axes, 5 bars, 4 long bars, 2 striking-hammers, 2 stone-hammers, 2 bracing-hammers, 4 mauls, 2 sets of chains, 2 large chains, 7 axes, 2 hand-hammers, 1 box of drills and points, also some plugs and feathers, 1 Douglass hand-pump, 1 Edson pump, 2 doz. short-shovels, 5 long-handle shovels, $\frac{1}{2}$ doz. short square-shovels, 8 hoes, 6 snaths, 3 bush-scythes, 3 scythes, 8 iron rakes, 10 wooden rakes, 3 spades, 3 forks, 10 hay-forks, 2 pails, 3 brooms, 1 solder-pot furnace, 1 hammer, 1 level, 1 square, 12 pair rubber boots, 2 boat-hooks, 1 boat and oars, 1 scow and oars, 60 lbs. sheet-lead, 20 lbs. dry red-lead, 1 weir-gauge, 60 lbs. nails, 1 old barrel, 3 galls. red paint, 1 old stove, 2 paving-hammers, 2 paving-rammers, 1 cylinder gauge-plunger, 1 oil-stone, 8 locks for the line, 50 ft. fuse, 1 dust-brush, 3 augers, 1 gas-stove, 1 set blocks and falls, 2 large blocks, 75 ft. old rope, 3 ladders, 8 wheelbarrows, 200 common bricks, 2 48-inch pipes, 2 48-inch pipes (cracked), 5 sleeves, 1 drag, 1 cord of wood, 1 lot old timbers, 20 bound-stones, 1 lot

square paving blocks, 1 sand-screen, 1 watering-pot, lot of 8-inch flange-pipe, lot of sand, lot of hard-pine timber, 7 tons of hay, 6 paint-brushes, 20 galls. brown paint, 5 galls. drab paint, 1 gall. turpentine, 2 snow-shovels, 2 sheet-piling rammers, 1 branding-iron, 1 border-knife, 1 gall. sperm oil and can, 1 gall. kerosene and can, 35 bu. oats, 1 box gate handles.

Inlet Chamber, Farm Pond.

26 stop-planks, 5 stop-planks for siphon culvert under Section A; 1 broom, 1 dust-brush, 1 pail, 1 boat-hook.

Sluice in Farm Pond Dyke.

8 stop-planks, 2 sets stop-plank hooks.

Sluice from Farm Pond into Ditch.

5 stop-planks, 1 set stop-plank hooks.

New South Dam.

4 stop-planks.

Table of Rainfall, at Chestnut-Hill Reservoir, for year ending Dec. 31, 1882.

Date.	Inches.	Snow or Rain.	Duration.	Date.	Inches.	Snow or Rain.	Duration.
Jan. 1	.15	Snow	7 45 p.m. to 6.30 a.m.	March 6	.11	Rain	2.30 to 9.15 p.m.
" 2				" 9	.63	Rain and Snow	12.30 p.m. to 5.00 a.m.
" 6	.19	Rain and Snow	3.30 p.m. to 3.30 a.m.	" 10			
" 7				" 12	.12	Rain	11.30 a.m. to 6.30 p.m.
" 8	.03	Mist	during night.	" 16	.01	Snow	11.45 a.m. to 8.30 p.m.
" 11	.51	Snow	2.00 a.m. to 5.15 p.m.	" 21	.17	"	11.30 a.m. to 11.45 p.m.
" 13	.27	"	9.30 a.m. to 6 p.m.	" 27	.20	Rain	12.30 to 10.00 p.m.
" 17	.39	"	1.00 to 11.30 a.m.	" 30	.07	"	11.30 a.m. to 2.00 p.m.
" 18	.13	Mist	during night.	Total .	2.80		
" 21	.41	Rain & Snow	12.30 to 10.15 p.m.	April 4	.05	Rain	7.30 to 9.30 p.m.
" 25	.55	Snow and Rain	8.00 p.m. to 1.30 p.m.	" 6	.08	"	7.30 to 8.00 p.m.
" 26				" 10	.04	Snow	12.15 a.m. to 1.15 p.m.
" 26	.28	Rain	6.30 to 11.30 p.m.	" 19	.82	Rain	4.45 p.m. to 2.30 a.m.
" 28	.21	Snow	2.00 to 10.30 p.m.	" 20			
" 31	1.00	"	{ 3.30 p.m. to 5.30 a.m., Feb. 1st.	" 27	1.41	Rain and Snow	5.30 a.m. to 3.00 a.m.
Total .	4.12			" 28			
Feb. 1	.41	Snow	{ 3.30 p.m. Jan 31st. to 5.30 a.m.	Total .	2.40		
" 2	.07	"	during night.	May 2	.04	Rain	11.40 a.m. to 12.20 p.m.
" 4	1.35	"	2.30 p.m. to 11.30 a.m.	" 9	.56	"	1.00 to 5.45 a.m.
" 5				" 11	.11	"	8.30 a.m. to 1.00 p.m.
" 7	.07	Rain	during night.	" 12	2.24	"	7.10 a.m. to 1.30 p.m.
" 9	.85	Rain and Snow	3.30 p.m. to 10.30 a.m.	" 13			
" 10				" 14			
" 13	.03	Rain	during night.	" 15	.10	Showers.	
" 16	.36	"	11.20 p.m. to 5.00 a.m.	" 18			
" 17				" 19	.48	Rain	6.30 a.m. to 5.30 p.m.
" 19	.04	Snow	11.30 a.m. to 5.00 p.m.	" 20			7.15 p.m. to 10.00 a.m.
" 21	.94	"	4.15 a.m. to 1.00 a.m.	" 21	.59	"	
" 22				" 23	.54	"	5.40 a.m. to 2.15 p.m.
" 22	.03	"	12.30 to 6.30 p.m.	" 25	.15	"	12.15 to 6.30 p.m.
Total .	4.15			" 29	.53	"	12.30 to 8.45 a.m.
March 1	1.46	Rain	3. a.m. to 2.30 p.m.	Total .	5.34		
" 2							
" 5	.03	"	during night.				

Table of Rainfall at Chestnut-Hill Reservoir. — CONCLUDED.

Date.	Inches.	Snow or rain.	Duration.	Date.	Inches.	Snow or rain.	Duration.
June 1	.14	Rain	5.00 a.m. to 4.30 p.m.	Sept. 21	1.13	Rain	4.55 a.m. to 5.30 p.m.
" 4	.23	"	7.30 a.m. to 3.00 p.m.	" 22	.14	Show-ers	during day.
" 10	.28	"	11.00 p.m. to	" 22	2.55	Rain	7.30 p.m. to
" 11			9.00 a.m.	" 23			8.15 a.m.
" 18	.57	Show-ers.	9.00 a.m. to	" 24	.44	"	5.15 to 9.15 a.m.
" 19			2.00 a.m.	" 29	.35	"	2 to 8 p.m.
" 19	.16	Rain	4.40 to 5.50 p. m.	Total .	9.18		
" 30	.03	Show-ers.		Oct. 14	1.25	Rain	6 a.m. to 2.45 p.m.
Total .	1.41			" 16	.17	Show-ers	
July 1	.56	Show-ers.	6.30 p.m. June 30th. to	" 17			
" 2			9.00 a.m.	" 18	.42	Rain	10 p.m. to
" 4	.59	Rain	8.00 p.m.	" 19			7.30 p.m.
" 5			to	" 24	.03	Mist	during day.
" 6			2.30 a.m.	Total .	1.87		
" 13	.23	"	6.00 to 8.20 a.m.	Nov. 7	.08	Rain	during p.m.
" 19	.48	"	1.15 to 2.20 p.m.	" 13	.16	"	7 to 9 p.m.
" 19	.32	"	4.45 to 5.00 p.m.	" 17	.39	Snow	5.15 a.m. to
" 28	.35	"	8.55 to 10.00 a.m.	" 18			8.45 a.m.
" 28	.36	"	4.10 to 6.00 p.m.	" 26	.20	"	5.30 p.m. to
Total .	2.89			" 27			6 a.m.
Aug. 8	.40	Rain	9.30 p.m. to	" 29	.34	"	7 a.m. to
" 9			12.30 a.m.	" 30			9.15 a.m.
" 10	.04	"	11 to 11.30 a.m.	Total .	1.17		
" 16	.43	"	11.15 a.m. to 4 p.m.	Dec. 6	.25	Rain	12.15 to 4.30 a.m.
" 24	.41	"	4.15 to 11.30 a.m.	" 7	.12	Rain and Snow	12.05 to 5 p.m.
Total	1.28			" 10	.24	Snow	5 a.m. to 2 p.m.
Sept. 4	.03	Show-ers	during a.m.	" 11	.23	"	6.40 a.m. to 3.45 p.m.
" 8	.33	Rain	7.30 p.m. to	" 13	.35	Snow and Rain	12.30 to 9.30 p.m.
" 9			11 a.m.	" 22	.69	Rain	5.45 p.m. to
" 11	3.00	"	10.30 a.m. to	" 23			11.30 a.m.
" 12			10.45 a.m.	Total .	1.88		
" 14	.03	Show-ers	during a.m.				
" 14	1.13	Rain	9.05 to 10.30 p.m.				
" 20	.05	"	11.40 to 11.55 a.m.				

Total for year 38.49 inches.

REPORT OF THE SUPERINTENDENT OF THE EASTERN DIVISION.

BOSTON, May 1, 1883.

LEONARD R. CUTTER, Esq., *Chairman Boston Water Board*: —

SIR, — My report for the year ending with April 30th is herewith respectfully submitted: —

I consider the works, as a whole, to be in very good condition.

The work of relaying pipes of larger sizes and of laying new ones in South Boston, and East Boston, ordered last winter by the Board, was begun as early as the season would admit, and will be finished in about three weeks. That in the city proper will be commenced as soon as the pipes by the new contract are delivered.

The 40-inch main pipes over the high-water flood-gates, on Beacon street, were lowered to correspond with the regular grade of that line. I think those now over what was once the low-water gates should also be changed. A new 40-inch gate was established, on Brookline avenue, opposite Maple avenue, or about midway between the gates at the ends of Brookline avenue.

The stand-pipe on the Fort lot, Roxbury Highlands, was repainted in July. The Worthington pumping-engine, at the Elmwood-street station, has been overhauled and repairs completed, so far as to allow it to be used, and is in use. The engines at the Brighton and East Boston stations are in good condition.

Only two leaks of note have occurred in the distributing mains during the year. One on the 20-inch line under Warren bridge, which supplies East Boston (joint blowed out), and one in the high-service manhole bend (burst) of the 16-inch syphon at the channel, Dover-street bridge. They were promptly repaired, and are in as good condition as before. The 20-inch line under Warren bridge has given a great deal of trouble. Being of the original make, and having no lead score in the sockets, the lead is being continually loosened by the contraction and expansion of the

pipes and the shutting off of the line, which is done at every second alarm of fire from East Boston, carrying with it the liability of a leak. But I understand a new bridge is soon to be built, and new pipes of modern make are to be substituted.

The number and localities of the stand-pipes for street watering-carts, drinking-fountains, and watering-troughs, can be found on the Water Registrar's report.

MAIN-PIPE.

The whole number of feet of main pipe of the different sizes now in service is 1,938,640, equal to 367.16 miles. A larger amount has been laid since the works were commenced, but have been taken up or abandoned.

SERVICE-PIPES.

Whole number put in	894
Length in feet	25,376
Total number to date	48,160

Of the relaying of enlarged sizes the following table shows the change in sizes :—

Street.	Between what Streets.	Size now.	No. of feet.	Size formerly.
Tremont	Hammond and Camden	12-in.	644	6-in.
First	I and K	12 "	456	6 "
Second	H and Dorchester	12 "	497	6 "
Jeffries	Maverick and Marginal	12 "	740	6 "
Marginal	Jeffries and B. & A. R.R. Freight-house	12 "	1,142	6 "
Trenton	Brooks and Prescott	12 "	1,281	6 "
South	Beach and East	8 "	374	6 "
Bradford	Waltham and Shawmut ave. .	6 "	618	4 "
Bowker	Sudbury and Chardon	6 "	445	4 "
Milford	Shawmut ave. and Taylor . .	6 "	98	4 "
Chickering pl. . .	Harrison ave. and Washington,	6 "	30	4 "
Hayward pl. . . .	Harrison ave. and Washington,	6 "	38	4 "
Brimmer pl. . . .	Essex and Hayward pl.	6 "	153	4 "
Harvard	South and Utica	6 "	178	12 "

TAKEN UP AND ABANDONED.

12-inch iron pipe	300 feet.
6-inch iron pipe	6,471 "
4-inch iron pipe	1,540 "
1½-inch iron pipe	517 "

PIPES CHANGED.

One ½-inch taken out, and one 1¼-inch put in.
Nine ½-inch taken out, and nine 1-inch put in.
Seven ½-inch taken out, and seven ¾-inch put in.
Forty-eight 1½-inch (iron) taken out, and forty-eight ½-inch (lead) put in.

EXTENDED.

Four ¾-inch pipes	118 feet.
Nineteen ½-inch pipes	453 "

Statement of Location, Size, and Number of Feet of Pipe laid in 1882.

NOTE. — B. indicates Boston; S.B. South Boston; E.B. East Boston; B.H. Boston Highlands; D. Dorchester; W.R. West Roxbury; Bri. Brighton.

In what Street.	Between what Streets.	District.	Size.	Length.
Chardon	Bowker and Hawkins	B.	24	100
	Total 24-inch			100
Newbury	Hereford and West Chester Park	B.	12	171
West Chester Park . .	Newbury and Commonwealth ave.	"	"	297
Columbus ave.	Camden and Northampton	"	"	626
Tremont	Hammond and Camden	"	"	644
Chardon	At Merrimac	"	"	46
Curve	Hudson and Harrison ave.	"	"	186
Congress ave.	A and the Bridge	S.B.	"	561
First	H and K	"	"	543
H	First and Second	"	"	299
Second	Dorchester and H	"	"	498
Jeffries	Maverick and Marginal	E.B.	"	740
Marginal	Jeffries and B. and A. Freight House	"	"	1,142
Trenton	Brooks and Prescott	"	"	1,281
Amory	Boylston and Bragdon	W.H. B.R.	"	327
Brookline ave.	Near Maple ave.	B.H.	"	22
Maple ave.	Near Brookline ave.	"	"	27
Amory	Centre and Codman ave.	"	"	116
Harrison ave.	Mt. Everett and Columbia	Dor.	"	419
Erie ave.	Merrill and New Seaver	"	"	95
Washington	Roslin and Homer	"	"	504
Corey	Centre and Garfield ave.	W.R.	"	1,173
Florence	Ashland and Albion	"	"	79
Everett	North Beacon and Western ave.	Bri.	"	410
Brooks	Newton and Parkman	"	"	348
Foster	Mt. Vernon and South	"	"	292
	Total 12-inch			10,846
Norfolk place	Harrison ave. and Washington	B.	8	120
	Amount carried forward			120

Statement of Location, Size, etc. — *Continued.*

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Amount brought forward</i>	. . .	. . .	120
South	Beach and East	B.	8	374
Bowker	At Sudbury	"	"	16
Alger	From Dorchester ave.	S.B.	"	47
Gilbert	Hoffman and Wyman	B.H.	"	37
Hillside ave.	Parker and Parker Hill ave.	"	"	1,983
Melville	Allston and R.R. Crossing	Dor.	"	45
Hartford	Sargent and Howard ave.	"	"	532
Alban	Ashmore and Wells ave.	"	"	76
Trull	Bellevue and Ware	"	"	6
Cushing ave.	Everett and Sawyer ave.	"	"	1,488
Quincy	Bellevue and Mt. Everett	"	"	324
Melbourne	Centre and Welles	"	"	161
West Park	Millet and Coffee court	"	"	973
Allston	Mather and Centre	"	"	150
Glen Road	Forest Hills and Sigourney	W.R.	"	89
Brandon	Birch and Amherst	"	"	477
Temple	Ivory and Weld	"	"	729
Boylston	C and Chestnut ave.	"	"	54
Garfield ave.	Corey and Vernon	"	"	435
Anawan ave.	Beach and Providence R.R. Crossing	"	"	109
Western ave.	Market and the Bridge	Bri.	"	167
	<i>Total 8 inch</i>	. . .	. . .	8,392
Broadway Extension	Washington and Harrison ave.	B.	6	283
Commonwealth ave.	W. Chester Park and Hereford	"	"	25
Stanhope	Berkeley and the railroad	"	"	269
Mayo	Castle and Cobb	"	"	136
Truro	From Yarmouth	"	"	234
Harrison ave.	Bedford and Essex	"	"	566
Exeter place	Chauncy and Harrison ave.	"	"	16
St. James ave.	Dartmouth and Exeter	"	"	109
Wellington	Columbus ave. and the railroad	"	"	104
Trinity place	St. James and Dartmouth	"	"	171
Province	Bromfield and Province court	"	"	132
	<i>Amount carried forward</i>	. . .	. . .	2,045

Statement of Location, Size, etc. — *Continued.*

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Amount brought forward</i>	. . .	. . .	2,045
Camden	Tremont and the railroad	B.	6	384
Bradford	Waltham and Shawmut ave.	"	"	618
Bowker	Sudbury and Chardon	"	"	429
Milford	Shawmut ave. and Taylor	"	"	98
Chickering place . . .	Harrison ave. and Washington	"	"	30
Hayward " . . .	" " " "	"	"	38
Harvard	South and Utica	"	"	178
Chardon	Merrimac and Hawkins	"	"	366
Tyler	Oak and Curve	"	"	214
C	Seventh and the railroad	S.B.	"	176
Falcon	Brooks and Meridian	E.B.	"	82
Southwood	Edgewood and Blue hill ave.	B.H.	"	229
Centre	Pynchon and Highland	"	"	178
Homer place	Moreland and Winthrop	"	"	200
Howland	Warren and Elm Hill ave.	"	"	373
Devon	Warren and Blue Hill ave.	"	"	145
Thornton	Guild and Cedar square	"	"	260
Regent square	From Regent	"	"	33
La Fayette court . . .	" Rand	"	"	169
Dale ave.	Dale ave. and Rockland	B. H.	"	125
Savin	Tupelo and Blue Hill ave.	"	"	258
Elmore	Mayfield and Kensington	"	"	134
Maple ave.	At Brookline ave.	"	"	43
Gerard	George and Howard	"	"	191
Hurlburt	Ray and Regent	"	"	140
St. from Walnut ave. .	Walnut ave. Wakullah	"	"	222
Bartlett	Dudley and Lambert ave.	"	"	50
Train	Mill and King	Dor.	"	421
Mill	Adam and Train	"	"	77
Temple Place	From Temple	"	"	330
Dorset	Dorchester ave. and Boston	"	"	91
Virginia	Davenport ave. and Bird	"	"	69
Merrill	Erie ave. and Miller	"	"	114
Plymouth	Commercial and Neponset	"	"	237
	<i>Amount carried forward</i>	. . .	. . .	8,747

Statement of Location, Size, etc. — *Continued.*

In what Street.	Between what Streets.	District.	Size.	Length.
	<i>Amount brought forward</i>	. . .	. . .	8,747
South	Commercial and Pleasant	D.	6	380
Bellevue	Trull and Quincy	"	"	116
Carruth	Ashmont and Beaumont	"	"	445
Beaumont	Carruth and Adam	"	"	749
Mayfield	Dorchester ave. and Pleasant	"	"	488
Nixon ave.	Mather and Centre	"	"	324
Sawyer	Cushing and Cushing ave.	"	"	539
Bodwell Park	From Bird	"	"	28
New	From Bowdom ave.	"	"	33
Minton	From Savin Hill	"	"	28
Orion	Davenport and Rocky Hill ave.	"	"	150
Sayward	Bird and Columbia	"	"	162
George	Hudson and Shirley	"	"	152
Downer ave.	De Wolf and Pleasant	"	"	100
De Wolf	Commercial and Downer ave.	"	"	40
Mather	At Allston	"	"	13
Copley	School and Amory	W.R.	"	214
School	Arcadia and Copley	"	"	157
Sigourney	Glen road and Walnut	"	"	435
Amherst	Brandon and Prospect	"	"	531
Newberne	John A. Andrew and Carolina ave.	"	"	299
Court	From Jamaica	"	"	164
Morland	From Pond	"	"	248
New	Thomas and Elliot	"	"	124
Carolina ave.	Newberne and Carolina ave.	"	"	60
Lamartine sq.	Lamartine and Green	"	"	195
Parkman	From Newton	Bri.	"	279
Highland ave.	From Cambridge	"	"	48
Waverley	Western ave. and Market	"	"	186
Webster ave.	Brighton ave. and Cambridge	"	"	29
New	From Webster ave.	"	"	215
Tremont	Washington and Newton line.	"	"	1,365
Pratt	From Lindall	"	"	383
Vernon	At Everett	"	"	16
	Total 6-inch	. . .	. . .	17,442

Statement of Location, Size, etc.— *Concluded.*

In what Street.	Between what Streets.	District.	Size.	Length.
M-st. pl.	From M.	S.B.	4	17
Hooten court	From Everett	E.B.	"	128
Kensington park	Warren and Dale	B.H.	"	219
Cherry place	From Tremont	"	"	175
Court	From Boylston	W.R.	"	75
Court	From Lamartine	"	"	174
	Total 4-inch	...	...	947

**Statement of Location, Size, and Number of Feet of Pipe
Relaid and Abandoned in 1882.**

In what Street.	Between what Streets.	District.	Size.	Length.	Size of Pipe as relaid.
Chardon	Bowker and Hawkins	B.	24	100	24
Harvard	South and Utica	"	12	178	6
Curve	Hudson and Harrison ave.	"	12	122	12
Tremont	Hammond and Camden	"	6	644	"
Province	Bromfield and Province court	"	"	132	6
South	Beach and East	"	"	374	8
Camden	Tremont and B. & P. R.R.	"	"	384	6
Chardon	Merrimac and Hawkins	"	"	412	"
Tyler	Oak and Curve	"	"	214	"
Durham	St. Botolph and Railroad	"	"	10	. . .
Orange	Washington and Shawmut ave.	"	"	100	. . .
First	I and K	S.B.	"	456	12
Second	H and Dorchester	"	"	497	"
Bartlett	Dudley and Lambert ave	B.H.	"	50	6
Maple ave	At Brookline	"	"	35	"
Jeffries	Maverick and Marginal	E.B.	"	740	12
Marginal	Jeffries and B. & A. freight-house	"	"	1,142	"
Trenton	Brooks and Prescott	"	"	1,281	"
Bradford	Waltham and Shawmut ave.	B.	4	618	6
Milford	Shawmut ave. and Taylor	"	"	98	"
Chickering place	Harrison ave. and Washington	"	"	30	"
Hayward place	Harrison ave. and Washington	"	"	38	"
Brimmer place	Essex and Hayward place	"	"	153	"
Linwood place	From South	"	"	158	. . .
Bowker	Sudbury and Chardon	"	"	445	6
	RAISED.			—1,540	
Camden	Tremont and Providence R.R.	"	6	469	
	LOWERED.				
Beacon	At the Old Bridge	"	40	103	
Everett	Cushing ave. and Stoughton	D.	8	114	
Parson	Arlington and Bennett	Bri.	"	320	
Bennett	Parson and Market	"	"	180	

Table Showing the Lengths of Supply and Distributing Mains laid during the Year 1882-83, and the Length connected with the Sudbury and Cochituate Works, May 1, 1883.

DIAMETER OF PIPE IN INCHES.														Totals.
	60	48	40	36	30	24	20	16	12	10	8	6	4	
EASTERN DIVISION.														
Length in use May 1, 1882	...	23,638	23,166	20,255	31,518	26,447	44,868	47,777	521,395	16,200	164,083	824,811	141,685	1,885,843
Stopcocks in same	...	1	6	9	14	25	30	83	747	6	298	1,876	583	3,678
Length laid or relaid during year	...	...	...	...	...	100	...	...	10,846	...	8,392	17,442	947	37,527
Stopcocks in same	...	...	1	...	...	...	...	...	20	...	13	60	7	101
Length abandoned during year	...	...	...	...	...	100	...	...	300	...	...	6,471	1,540	8,411
Stopcocks in same	...	...	...	...	...	...	...	...	1	...	...	9	6	17
Length in use May 1, 1883	...	23,638	23,166	20,255	31,518	26,447	44,868	47,777	531,941	16,200	172,475	835,782	141,092	1,915,159
Stopcocks in same	...	1	7	9	14	25	30	83	766	6	310	1,927	584	3,762
WESTERN DIVISION.														
Length in use May 1, 1883	266	16,051	1,435	1,166	2,140	...	...	20	2,043	...	...	360	...	23,481
Stopcocks in same	...	5	...	3	...	...	...	2	4	...	...	2	...	16
Total length connected with works May 1, 1883	266	39,689	24,601	21,421	33,658	26,447	44,868	47,797	533,984	16,200	172,475	836,142	141,092	1,938,640 ft. equal to 367.16 miles.
Length of Hydrant, Blow-off, and Fire Reservoir Pipes, May 1, 1883.														
	16 inches.				12 inches.				9 inches.				4 inches.	Totals.
Length in use May 1, 1882	80				4,739				3,284				15,111	28,616
Length laid or relaid during year	...				59				...				23	495
Length abandoned during year	...				...				...				493	524
Total length in use May 1, 1883	80				4,798				3,223				14,641	28,587

Statement of Service Pipes laid in 1882.

DIAMETER IN INCHES.	BOSTON.		SOUTH BOSTON.		EAST BOSTON.		BOSTON HIGHLANDS.		DORCHESTER.		WEST ROXBURY.		BRIGHTON.		TOTALS.		
	Number of Pipe.	Length in Feet.	Number of Pipe.	Length in Feet.	Number of Pipe.	Length in Feet.	Number of Pipe.	Length in Feet.	Number of Pipe.	Length in Feet.	Number of Pipe.	Length in Feet.	Number of Pipe.	Length in Feet.	Number of Pipe.	Length in Feet.	
2	1	19	.	.	.	.	.	.	.	.	1	17	.	.	2	36	
1½	4	78	.	.	.	.	1	48	1	4	.	.	1	51	7	181	
1¼	1	19	.	.	.	.	.	.	.	.	.	.	.	.	1	19	
1	18	508	.	.	2	4	.	.	2	27	3	58	.	.	25	597	
¾	6	230	.	55	.	.	1	95	1	4	.	.	.	.	10	384	
5/8	110	3,681	121	2,984	53	1,251	186	5,865	175	4,967	125	3,079	79	2,332	849	24,159	
Aggregate																894	25,376
Making total number up to May 1, 1883																48,160	

Repairs of Pipes during the Year 1882.

WHERE.	Diameter of Pipes in Inches.																				Total.
	48	40	36	30	24	20	16	12	10	8	6	4	3	2	1½	1¼	1	¾	½		
Boston	1	1	1	3	.	7	2	18	.	12	43	40	2	2	48	5	11	5	600	10	811
South Boston	.	.	.	.	.	.	.	5	.	1	2	5	.	.	.	.	5	1	180	5	204
East Boston	.	.	.	.	1	2	2	1	2	.	1	1	.	1	.	.	1	.	114	10	136
Boston Highlands	.	.	.	1	.	.	.	4	.	1	1	.	3	.	.	1	.	1	130	3	145
Dorchester	.	.	.	.	.	.	.	2	.	.	10	.	2	.	.	.	.	.	54	2	70
West Roxbury	.	.	.	.	.	.	.	.	.	.	.	.	1	.	.	.	1	.	32	.	34
Brighton	.	.	.	.	.	.	.	.	.	.	.	.	2	.	.	.	2	.	14	.	18
Totals	1	1	1	4	1	9	4	30	2	14	57	46	10	3	48	6	20	7	1,124	30	1,418

Of the leaks that have occurred on pipes of 4 inches and upwards: joints, 83; settling of earth, 15; defective pipe, 15; defective packing, 34; defective stopcock, 8; by frost, 4. Total	159
Stoppages by fish, 5; gasket, 4; frost, 2. Total	11
Of 3-inch and on service pipes: joints, 17; settling of earth, 87; defective pipe, 116; defective coupling, 9; defective faucet, 3; faucet blown out, 1; faucet pulled out, 7; coupling loose at main, 2; stiff connections, 48; cut by parties unknown, 1; by sewer diggers, 45; struck by pick, 23; gnawed by rats, 10; frost, 17. Total	394
Stoppages by fish, 344; rust, 430; dirt, 4; frost, 37; solder, 2	854
Total	1,418

Statement of Leaks and Stoppages 1850-1882.

YEAR.	DIAMETER OF.		Totals.
	Four inches and upwards.	Less than four inches.	
1850	32	72	104
1851	64	173	237
1852	82	241	323
1853	85	260	345
1854	74	280	354
1855	75	219	294
1856	75	232	307
1857	85	278	363
1858	77	324	401
1859	82	449	531
1860	134	458	592
1861	109	399	508
1862	117	373	490
1863	97	397	494
1864	95	594	489
1865	111	496	607
1866	139	536	675
1867	122	487	609
1868	82	449	531
1869	82	407	489
1870	157	769	926
1871	185	1,380	1,565
1872	188	1,459	1,647
1873	153	1,076	1,229
1874	434	2,120	2,554
1875	203	725	923
1876	214	734	948
1877	109	801	910
1878	213	1,024	1,237
1879	211	995	1,206
1880	135	929	1,064
1881	145	883	1,028
1882	170	1,248	1,248

HYDRANTS.

During the year 122 Hydrants have been established, and 59 abandoned.

	ESTABLISHED.					ABANDONED.					Total Difference.
	Boston Lowry.	Post.	Lowry.	Boston.	Total.	Boston Lowry.	Post.	Lowry.	Boston.	Total.	
Boston	2	10	15	1	28	2	..	..	28	30	2 less
South Boston	1	9	3	..	13	..	..	..	6	6	7
East Boston	2	1	6	..	9	..	..	..	8	8	1
Boston Highlands	4	1	4	5	14	..	..	..	3	3	11
Dorchester	9	4	8	13	34	..	..	3	6	9	25
West Roxbury	3	3	1	6	13	..	1	..	1	2	11
Brighton	1	6	1	3	11	..	..	1	..	1	10
	22	34	38	28	122	2	1	4	52	59	63

Total number up to May 1st, 1883.

	Boston Lowry.	Boston Y.	Post.	Lowry.	Boston.	Total.
Boston	35	..	51	458	795	1,329
South Boston	10	1	25	133	339	508
East Boston	4	..	15	107	182	308
Boston Highlands	12	..	35	651	125	823
Dorchester	35	..	76	564	70	745
West Roxbury	20	..	199	91	45	355
Brighton	3	..	141	58	31	233
Deer Island	..	..	16	..	..	16
Brookline	..	..	..	5	3	8
Chelsea	..	..	..	..	7	7
	..	..	..	..	..	4,342

44 hydrants have been taken out and replaced by new or repaired ones, and 192 boxes have been taken out and replaced by new ones. The hydrants have had the usual attention paid them.

STOPCOCKS.

91 new stopcocks have been established this year. 116 boxes have been taken out and replaced by new ones. All the stopcocks have had the proper attention paid them.

**Statement of Pipes and other Stock on hand, exclusive of
Tools, May 1, 1883.**

	DIAMETER IN INCHES.														
	60	48	40	36	30	24	20	16	12	10	9	8	6	4	3
Pipes	2	32	33	27	30	28	49	290	1230	112	4	18	1498	79	98
Blow-off Branches		2		2	2	1		8	10	3		16			
Y Branches					1	1	1	1							
4-Way Branches			2	1	2	9	5	12	63			36	5		
3-Way Branches		1	7	3	10	10	1	26	55	30	29	38	116	36	
Flange Pipe			1										8		
Sleeves	1	6	9	6	11	23	9	23	52	20		17	115	18	33
Clamp Sleeves		3		2	7				3				10	6	
Caps	1	2	2	2	2	2	2	5	14	15		38	98	37	
Reducers		1	5	3	2	6	8	3	43	4	50	10	40	33	
Bevel Hubs													6	4	
Offset Pipes									12			23	139	13	
Yoke Pipes									18			12	29	1	
Manhole Pipes			2		2										
One-eighth Turns			1		5	5	14	14	57	12		44	34	8	
Pieces of Pipes		10	2	2		5	2		9	3		6	14	12	5
Curve Pipe		6		3	15	15	10	6	19	8		10	60	16	
Quarter Turns				2	10	4	10	8	63	10		30	41	3	
Double Hubs							3	8					13		
Blow-off and Manhole				2											
Plugs													4	6	
Thawing Clamps									48			29	34	32	
Straps			4	2			1								
Branch Openings			4		18	3									
Stopcocks				1	1	1	1	2	9			14	22	18	
Manhole Branches				1	1										

Lowry Hydrants. — 22 Lowry hydrants, 5 pots, 71 gaskets, 36 valves, 27 wastes, 25 frames, 22 large covers, 10 small covers, 3 sidewalk-frames and covers, 134 lbs. composition castings, 638 lbs. iron castings.

Post Hydrants. — 24 hydrants, 10 pots, 18 valve-pots, 18 rubber valves, 39 gaskets, 29 rings, 6 extensions, 510 bolts, 4,154 lbs. iron castings, unfinished.

Boston Hydrants. — 48 hydrants, 37 wastes, 147 straps, 95 rubber-valves, 10 wharf hydrant-cocks, 243 lbs. iron castings, unfinished.

Boston Lowrys. — 55 barrels, 21 pots, 92 rubber gaskets, 2 bottom extensions, 49 frames and covers, 656 bolts.

For Stopcocks. — 282 bolts, 115 lbs. washers, 252 malleable nuts, 65 lbs. composition, 30 screws, 10 valves, 2 rings, 33,749 lbs. iron castings.

Meters in Shop. — 1 4-inch, 8 3-inch, 14 2-inch, 11 $1\frac{1}{2}$ -inch, 15 1-inch, 29 $\frac{3}{4}$ -inch, 181 $\frac{5}{8}$ -inch.

Stock for Meters. — 62 clocks, 251 nipples, 34 golden-solder nipples, 82 connection-pieces, 9 fish-boxes, 33 pieces flange pipe.

For Service Pipe. — 1 $2\frac{1}{2}$ -inch coupling, 5 2-inch valves, 93 2-inch nipples, 24 2-inch solder nipples, 7 2-inch hose nipples, 11 2-inch female couplings, 15 2-inch tubes, 7 2-inch male couplings, 35 $1\frac{1}{2}$ -inch cocks, 5 $1\frac{1}{2}$ -inch valves, 28 $1\frac{1}{2}$ -inch nipples, 50 $1\frac{1}{2}$ -inch female couplings, 32 $1\frac{1}{4}$ -inch cocks, 26 $1\frac{1}{4}$ -inch female couplings, 46 tubes, 41 $1\frac{1}{4}$ -inch T cocks, 14 iron plugs, 119 1-inch cocks, 8 1-inch crooked cocks, 16 1-inch T cocks, 6 1-inch air cocks, 48 1-inch sidewalk cocks, 118 1-inch male couplings, 123 1-inch female couplings, 28 1-inch tubes, 44 1-inch nuts, 43 $\frac{3}{4}$ -inch cocks, 174 $\frac{3}{4}$ -inch sidewalk cocks, 44 $\frac{3}{4}$ -inch T cocks, 44 $\frac{3}{4}$ -inch female couplings, 38 $\frac{3}{4}$ -inch tubes, 42 $\frac{3}{4} \times \frac{5}{8}$ -inch tubes, 6 $\frac{3}{4}$ -inch couplings, complete, 305 $\frac{5}{8}$ -inch cocks, 30 $\frac{5}{8}$ -inch crooked cocks, 31 $\frac{5}{8}$ -inch T cocks, 44 $\frac{5}{8}$ -inch right-angle cocks, 83 $\frac{5}{8}$ -inch sidewalk cocks, 124 $\frac{5}{8}$ -inch male couplings, 77 $\frac{5}{8}$ -inch thawing cocks, 22 $\frac{5}{8}$ -inch thawing couplings, 400 $\frac{5}{8}$ -inch nuts, 325 $\frac{5}{8}$ -inch washers, 133 $\frac{5}{8}$ -inch nipples, 65 $\frac{5}{8}$ -inch female couplings, 30 $\frac{1}{2}$ -inch cocks, 35 $\frac{1}{2}$ -inch female couplings, 38 $\frac{1}{2}$ -inch male couplings, 38 $\frac{1}{2}$ -inch nuts, 53 3×2 reducers, 32 wharf hydrant couplings, 171 lbs. brass castings, 118 bushings, 320 lbs. composition castings, 24,291 lbs. iron castings, 93 plugs, 253 telephone uprights.

Lead Pipe. — 330 lbs. 3-inch pipe, 1,190 lbs. 2-inch pipe, 920 lbs. 1-inch pipe, 506 lbs. $\frac{3}{4}$ -inch pipe, 18,390 lbs. $\frac{5}{8}$ -inch pipe.

Blacksmith Shop. — 788 lbs. refined iron, 62 lbs. band iron, 99 lbs. round Norway, 380 lbs. Norway different sizes, 160 calking steel, 18 lbs. machine steel.

Carpenter Shop. — 31 Lowry boxes, 31 post boxes, 34 Boston boxes, 15 Boston Lowry boxes, 73 stopcock boxes, 17 meter boxes, 700 paving blocks, 122,000 feet spruce plank, 20,000 feet batting boards, 11 casks spikes.

Tools. — Steam-engine, 1 large hoisting-crane, 3 boom derricks, 8 hand-gearred ditto, 8 sets shears and rigging for

same, 8 tool-houses, 4 tool-boxes, 7 nozzles, 2 platform scales, 1 portable blacksmith shop, 1 hand-roller, 2 horse ditto, tools for laying main and service-pipe, 2 engine-lathes, 1 foot ditto, 1 hand dito, 1 Pratt & Whitney ditto, 1 planer, 1 boring-mill, 2 chain hoisting-gears, 1 upright drilling machine, 4 grindstones, 1 trip-hammer, the necessary tools for carrying on the machine, blacksmith, carpenter, and plumbing shops, 1 circular saw, 1 fan-blower.

Stable. — 13 horses, 13 wagons, 2 buggies, 6 pungs, 1 sled, 2 sets runners, 2 carts, 17 sets harness, 30 blankets, $1\frac{1}{2}$ tons of hay, 30 bushels grain, 1 jigger, 2 hay-cutters.

Fountain Jets. — 1 large composition cylinder, 1 16-inch jet, 1 6-inch composition, 3 composition jet, 9 cast-iron plates, 2 4-inch composition jets, 5 swivel pipe patterns, 1 2-inch copper straight jet, 6 composition jets for small fountains.

Miscellaneous. — 14,000 lbs. pig lead, 760 lbs. gasket, 1 fountain basin, 130 cords wood, 1 thawing-boiler, 1 hose-carriage, 1,000 brick, 9 bbls. cement, 31 gallons linseed-oil, 30 gallons kerosene, 25 gallons spindle-oil, 40 gallons cylinder-oil, 2 garden-pumps.

E. R. JONES,

Superintendent Eastern Division.

REPORT OF THE SUPERINTENDENT OF THE MYSTIC WATER WORKS.

CHARLESTOWN DISTRICT, BOSTON, May 1, 1883.

LEONARD R. CUTTER, Esq., *Chairman Boston Water Board*:—

SIR, — The annual report of this department, for the year ending April 30, is herewith submitted:—

MYSTIC LAKE.

The level of the water in the lake has varied during the past year from extreme high-water mark to a point 4.66 below.

March 15, 1882, the water was 5.76 feet above tide-marsh level, or 1.16 feet below high-water mark. From this date it varied, water being allowed to waste over the dam at different times. April 21 it reached the highest point, viz., 6.92 feet above tide-marsh level. On September 11 the lake surface had fallen 2.4 feet, the lowest point reached during the year.

A great improvement in the quality of the water has been apparent the past two years. This I attribute, in a great degree, to the removal of vegetable matter, together with other deposits, which are constantly accumulating around the borders and in the shallow places of the lake. These accumulations are, in my opinion, one of the chief, if not the principal source of all the disagreeable flavors heretofore complained of, and can be, to a great degree, permanently remedied by filling with gravel these shallow localities that are now so detrimental to the purity of the water. This matter I earnestly recommend for consideration.

MYSTIC-VALLEY SEWER.

Operations on the sewer at Mystic station, Winchester, were placed in charge of this department July 15, since which time the same treatment has been continued. The branch leading from Moseley's tannery (owing to the increase of

business) has become quite inadequate for the purpose, making it troublesome and expensive to operate, and should be enlarged. This can be done at a nominal expense by utilizing the 16-inch cement distribution-pipe now being removed from Main street. With this exception, this branch of the works may be considered in good working order.

CONDUIT.

The conduit was drawn off three different times during the months of December and January last, and thoroughly cleaned. Heavy growths of vegetable matter found growing on the walls, together with large quantities of muscles and sediment, were removed; *spongilla* was also found growing on the walls, but in such minute particles that it was impossible to procure a good sample. Apparently this growth is confined to the conduit alone, as no sign of it has as yet been found either in lake or reservoir. Its general appearance is of recent growth, and confined to the upper section of conduit, and near the entrance.

The defect heretofore known to exist in this branch of the works was particularly examined, and found to be in such condition as to demand immediate attention. In connection with this matter I respectfully refer to the report and recommendations of the City Engineer.

ENGINE-HOUSE DEPARTMENT.

The buildings in connection with this department are now undergoing slight repairs, including painting, etc., and when completed will all be in good order.

The roads and grounds included in this department require an increase of expenditure over the ordinary running expense, on account of some 600 feet of stone wall to be laid on line of road leading from the reservoir to engine-house; also, 600 feet to be relaid, forming the north boundary of reservoir grounds, and the repairs or renewal of and painting the fence. These improvements call for immediate attention. Trees, of different kinds, are being added to the grounds, both at the lake and in the vicinity of the engine-house and reservoir, and it is contemplated to continue these from time to time as circumstances will permit.

PUMPING-SERVICE.

April, 1882, the three engines were thoroughly repaired, and all iron-work in connection with the water-cylinders well painted and varnished with two good coats each, at a

cost of \$125, since which time little or no expense in repairs has been made, and they may be considered in good order at this time.

The boilers have required more or less repairs from time to time, especially Nos. 1, 2, 3, and 4, these having been in almost constant use since the commencement of the works. In consideration of their long service, it was thought advisable to hold a strict and careful survey, to include all the boilers; the result of which was that the older ones, viz., Nos. 1, 2, 3, and 4, were found to be very much worn, so much so that careful usage and management will be required for the limited time they may be of service. A detailed report of their condition by the inspector is now on file.

DISTRIBUTION.

The distribution-pipes have been extended in this district 1,441 feet, of which 162 feet were 4 inch and 1,279 feet of 6 inch; 1,147 feet were on private account. There have also been laid in extension outside of this district 2,436 feet, all on private account, and 31 feet for the town of Everett, making a total extension by this department of 3,908 feet. 3,105 feet of pipe have been relaid; of this 2,553 feet were cement pipe replaced with cast-iron; 408 feet were enlarged from the original size, and 552 feet were cast-iron, renewed at Mystic wharf for the Lowell Railroad Co.

There have been 36 breaks on the distribution-pipes in this district and 12 breaks in Everett. Of these 1 was on 16-inch pipe, 1 on 12-inch, 1 on 10-inch, 2 on 8-inch pipe, and the remainder on 6, 4, and 2-inch pipe.

30 leaks have also occurred: 1 on 24-inch supply, 2 on 16-inch, and 1 on 12-inch; the remainder on 6, 4, and 2 inch pipe.

At the engine-house grounds one leak on the force main.

In Chelsea, 613 feet of 4-inch cement-pipe have been replaced with cast-iron of the same size.

In Somerville the extension has been 2,444 feet, in Chelsea 192 feet, making a total extension in connection with the works of 6,544 feet.

HYDRANTS AND GATES.

7 additional hydrants have been placed by this department, viz.: 1 Lowry on Freedom court, 1 Lowry on Gray street, 1 Lowry off Ruth avenue, 2 post hydrants on Main street, 1 post on Water street, and 1 post on Hoosac Tunnel dock, making an increase of 3 Lowry and 4 post hydrants in this department.

There have also been placed on private account, 2 post hydrants at Cochrane & Co.'s works, Everett, and 2 post hydrants at Fitchburg Railroad grounds, in Somerville.

In the city of Somerville 11 additional post hydrants have been placed. There have been placed in this department 9 additional gates: in Everett 1, in Somerville 14; making an increase of 24 in connection with the whole works.

SERVICE-PIPES.

35 new service-pipes, 657 feet, have been laid in this district; 72 have been repaired, altered, or renewed. Of these 63 were leaks, 6 were enlarged, 3 tin-lined renewed. 14 service-pipes were frozen, and 34 stoppages occurred: in 19 by fish, 10 by rust, and 5 by moss.

329 decayed wooden boxes were replaced with 215 cast-iron and 114 wood.

In Somerville 161 new service-pipes, 6,092 feet, have been laid; in Chelsea, 70 additional, 1,604 feet; and in Everett, 53 additional, 1,034 feet; making an increase of 9,387 feet of service-pipe laid. The total number of service-pipes in connection with the works is 13,992; the total length, 393,864 feet.

The accompanying tables give the number of feet of pipe laid and relaid, and the localities of all changes made during the year, together with the amounts of pipe connected with the works; also the amount of stock on hand, etc.

Respectfully submitted,

HIRAM CUTTS,
Superintendent.

Distribution Pipes Relaid in Charlestown, 1882-83.

Localities.	Original Size.	SIZE OF PIPE.					Total Feet.
		3 inch.	4 inch.	6 inch.	8 inch.	16 inch.	
		Feet.	Feet.	Feet.	Feet.	Feet.	
Main street	16 inch	.....	.....	.....	.....	1,416	1,416
Charles-river avenue . . .	6 "	.....	.....	336	.....	.....	336
Park street	6 "	.....	.....	24	.....	.....	24
Bow street	6 "	.....	.....	24	.....	.....	24
Thompson street	6 "	.....	.....	36	.....	.....	36
Gray street	4 "	.....	.....	.....	300	.....	300
Parker street	6 "	.....	.....	309	.....	.....	309
Mystic Wharf	4 "	.....	552	.....	.....	.....	552
Exeter place	2 "	108	.....	.....	.....	.....	108
Total . . . . .	.....	108	522	729	300	1,416	3,105

Extension of Distribution Pipes in 1882-83.

Localities.	SIZE OF PIPE.			Total Feet.
	4 inch.	6 inch.	8 inch.	
Freedom Court . . . . .	.....	180	.....	180
North Mead street	114	.....	.....	114
Off Rutherford ave. for E. Railroad	.....	264	.....	264
Hoosac Tunnel Dock, Pier 3 . . .	48	391	.....	439
" " " " 5 . . .	.....	444	.....	444
Town of Everett, Paris street . . .	31	.....	.....	31
A. Cochrane & Co., Everett . . .	.....	600	900	1,500
Fitchburg Railroad Co., yard in Somerville	900	.....	36	936
Totals	1,093	1,879	936	3,908

Extension of Service-Pipes in Charlestown in 1882-83.

Size.	$\frac{1}{2}$ inch.	$\frac{3}{4}$ inch.	$\frac{1}{2}$ inch.	1 inch.	$1\frac{1}{2}$ inch.	2 inch.	Total No.	Total Feet.
Number	9	19	1	2	2	2	35	916

Summary of Services connected with the works, May 1, 1883.

	Charlestown.	Somerville.	Chelsea.	Everett.	Total.
Services	5,430	3,605	4,246	711	13,992
Feet	146,602	117,066	113,996	16,200	393,864

CHARLESTOWN.	Relaid	2,697 feet.	
	Relaid and enlarged . .	408 "	
	Extension	2,293 feet.	
	Laid previous	155,806 "	
	Aggregate	158,099 "	or 30 miles 699 feet.
CHELSEA.	Relaid	613 feet.	
	Extension	192 "	
	Laid previous	149,983 "	
	Aggregate	150,175 "	or 28 miles 2,335 feet.
SOMERVILLE.	Relaid	1,579 feet.	
	Extension	2,444 "	
	Laid previous	239,785 "	
	Aggregate	242,229 "	or 45 miles 4,629 feet.
EVERETT.	Extension	31 "	
	Laid previous	76,324 "	
	Aggregate	76,355 "	or 14 miles 2,435 feet.
ENGINE-HOUSE GROUNDS, SOMER- VILLE.	Laid previous	387 "	

Total amount of distribution-pipe, 118 miles 4,205 feet.

Statement of Pipes, Specials, and other Stock on Hand.

	DIAMETER.									
	36 inches.	30 inches.	24 inches.	20 inches.	16 inches.	12 inches.	10 inches.	8 inches.	6 inches.	4 inches.
Pipes	3	19	15	2	356	185	88	133	548	67
Curves	..	6	..	..	..	..	..	..	..	..
X Branches	..	1	..	..	..	..	..	..	..	..
Siphon Branches	..	..	2	..	..	..	..	..	..	..
3-way Branches	..	..	2	..	38	39	43	27	22	15
4-way Branches	..	..	..	..	..	6	3	8	6	6
Quarter Turns	..	..	2	..	11	11	18	14	21	4
Eighth Turns	..	..	..	..	9	12	17	20	28	13
Sixteenth Turns	..	..	..	..	9	9	8	19	20	16
Offsets	..	..	..	..	..	8	4	11	19	12
Reducers	..	..	2	1	3	22	3	9	8	..
Sleeves	2	7	6	8	7	14	25	15	16	13
Plugs	..	..	..	..	..	10	14	32	34	11

Gates. — 1 20-inch, 1 10-inch, 1 6-inch, and 1 4-inch, 30 frames and covers, 2 gate-boxes.

Hydrants. — 30 Lowry hydrant barrels, 30 pots, 11 iron valves, 21 stems, 3 boxes, 7 frames and covers, 25 round do., 10 rubber valves, 10 do. gaskets, 10 wastes.

Meters. — 1 1½-inch, 1 2-inch, 4 1-inch, 11 ¾-inch, 21 ⅝-inch, 12 ⅝-connection, 6 1-inch do., 4 2-inch do., 4 meter-boxes.

Services. — 1,500 lbs. lead pipe, 12 iron boxes, 36 covers, 10 ⅝-inch services.

Stops. — 15 ⅝-inch Corp.-stops, 10 1-inch service-stops, 86 lbs. block tin, 25 lbs. solder.

Miscellaneous. — 5 tons pig lead, 2 casks nails, 30 gall. linseed-oil, 1 bale jute, 50 lbs. red lead, 1 bbl. black varnish, 10 gall. kerosene-oil, 1 gall. alcohol, 1 gall. shellac, 1 M feet spruce plank.

Tools, etc. — 1 tool-house, 2 tool-chests, 4 derricks, 1 Fairbanks scales, 1 tapping-machine, 1 drilling-machine, 1 30-ft. and 2 15-ft. ladders, 4 wheelbarrows, 1 grindstone.

All the necessary tools for laying and repairing main and service pipes. All patterns for small castings, etc.

Stable. — 3 horses, 2 wagons, 2 buggies, 2 pungs, 1 sleigh, 1 tip-cart, 3 harnesses, 3 blankets, and all necessary stable tools.

Engine-house. — 40 lbs. hemp packing, 29 lbs. rubber do., 7 lbs. solder, and 4 lbs. Martin do., 10 lbs. iron wire, 30 gall. sperm-oil, 10 gall. cylinder do., 10 gall. kerosene-oil, 134 lamp chimneys, 25 lbs. bar soap, 1 pair rubber boots, 182 lbs. brass springs, 17 air-pump springs, 16 lbs. brass air-pump links, 5 lbs. babbitt, 3 lbs. brass tube, 1 2-inch valve, 100 lbs. nuts and bolts, 10 lbs. washers, 3 4-inch boiler-tubes, 17 feet long, 3 cast steam-pipe flanges, 43 feet $1\frac{1}{2}$ -inch round iron, 130 feet $\frac{3}{4}$ -inch do., 1 5-inch copper pipe, 7 feet long, 75 lbs. old brass, 35 lbs. brass fittings, 1 copper air-chamber, 100 lbs. assorted iron fittings, 950 tons Cumberland coal, 32 socket-wrenches, 10 box do., 2 jack-screws, 8 S wrenches, 3 screw do., 2 Stillson do., 1 set pipe dies and tops, 2 pipe-cutters, 2 die-stocks, 12 pipe-tongs, 2 ratchets, 1 set drills, 19 bolt-taps, 24 cold-chisels, 45 draw-bolts, 10 eye do., 4 scaling-hammers, 2 hand-saws, 3 hammers, 3 sledges, 1 hatchet, 2 valve-seats, 1 level, 1 square, 1 24-inch Standard steel-gauge, 24 lbs. steel-drills, 5 key drills, 6 iron-clamps, 2 lead-ladles, 3 crowbars, 6 punch do., 4 oil-tanks, 3 derricks, 2 blocks, 6 falls, 1 differential block, 2 ladders, 1 forge, 1 anvil, 2 set fire-irons, 17 oil-lamps, 4 lanterns, 150 feet $2\frac{1}{2}$ -inch hose.

Stable and Yard. — 2 horses, 2 carts, 1 hay-cart, 1 express-cart, 1 robe, 4 blankets, 1 pung, 1 stone-drag, 1 plough, 1 harrow, 2 cart-harnesses, 1 lead harness, 1 light harness, 4 tons hay, 1 ton salt hay, 4 bushels oats, 1 iron roller, 1 lawnmower, 1 ladder, 1 grass-hook, 4 iron bars, 2 hydrant-wrenches, 1 gate-wrench, 5 forks 4 rakes, 2 scythes, 5 hoes, 1 scraper, 1 trowel, 5 picks, 6 shovels, 2 stone-hammers, 1 calking-hammer, 1 brace and bits, 3 pails, 2 wheelbarrows, 1 sand-screen, 1 gravel-screen, 1 axe, 1 saw, 6 brooms, 1 clock, 50 feet $\frac{3}{4}$ -in. rubber hose, 2 bbls. cement, 50 lbs. spikes.

Reservoir and Gate-House. — 1 stove, 2 chairs, 2 settees, 1 table, 1 clock, 2 sets blocks and falls, 1 chain fall, 1 saw, 1 axe, 1 hoe, 1 pick, 4 shovels, 1 brass water-gauge, 2 wrenches, 2 lamps, 2 lanterns.

Lake. — 2 Hoadley engines, 2 centrifugal pumps, 50 feet 8-in. copper pipe, 2 elbows for pipe, 2 boats, 1 portable pump, 1 scale, 1 rain-gauge, 1 set hook and chains, 1 ladder, 1 axe, 1 saw, 6 nets, 1 water-gauge, 3 lanterns, 1 wheelbarrow, 4 picks, 1 pipe-tongs, 1 hammer, 1 stove, 1 clock, 1 table, 3 chairs, 15 shovels, 7 dredge-hooks, 2 hay-forks, 1 grindstone.

Conduit. — 2 sets blocks and falls, 1 stove, 1 lantern.

Mystic-Valley Sewer. — 1 Hoadley engine, 1 centrifugal-pump, 4 hand-pumps, 1 tool-box, 6 nets, 80 extension-poles, 3 picks, 4 shovels, 4 coal-shovels, 2 manhole frames, 3 wheelbarrows, 1 saw, 2 axes, 2 bill-hooks.

CIVIL ORGANIZATION OF THE WATER WORKS, FROM THEIR COMMENCEMENT TO MAY 1, 1883.

WATER COMMISSIONERS.

NATHAN HALE, JAMES F. BALDWIN, THOMAS B. CURTIS. From May 4, 1846, to January 4, 1850.

ENGINEERS FOR CONSTRUCTION.

JOHN B. JERVIS, of New York, Consulting Engineer. From May, 1846, to November, 1848.

E. S. CHESBROUGH, Chief Engineer of the Western Division. From May, 1846, to January 4, 1850.

WILLIAM S. WHITWELL, Chief Engineer of the Eastern Division. From May, 1846, to January 4, 1850.

CITY ENGINEERS HAVING CHARGE OF THE WORKS.

E. S. CHESBROUGH, Engineer. From November 18, 1850, to October 1, 1855.

GEORGE H. BAILEY, Assistant Engineer. From January 27, 1851, to July 19, 1852.

H. S. MCKEAN, Assistant Engineer. From July 19, 1852, to October 1, 1855.

JAMES SLADE, Engineer. From October 1, 1855, to April 1, 1863.

N. HENRY CRAFTS, Assistant Engineer. From October 1, 1855, to April 1, 1863.

N. HENRY CRAFTS, City Engineer. From April 1, 1863, to November 25, 1872.

THOMAS W. DAVIS, Assistant Engineer. From April 1, 1863, to December 8, 1866.

HENRY M. WIGHTMAN, Resident Engineer at C. H. Reservoir. From February 14, 1866, to November, 1870.

A. FTELEY, Resident Engineer on construction of Sudbury-river works, from May 10, 1873, to April 7, 1880.

JOSEPH P. DAVIS, City Engineer. From Nov. 25, 1872, to March 20, 1880.

HENRY M. WIGHTMAN, City Engineer. From April 5, 1880, to present time.

After January 4, 1850, Messrs. E. S. CHESBROUGH, W. S. WHITWELL, and J. AVERY RICHARDS, were elected a Water Board, subject to the direction of a Joint Standing Committee of the City Council, by an ordinance passed December 31, 1849, which was limited to keep in force one year; and in 1851 the Cochituate Water Board was established.

COCHITUATE WATER BOARD.

Presidents of the Board.

THOMAS WETMORE, elected in 1851, and resigned April 7, 1856†	Five years.
JOHN H. WILKINS, elected in 1856, and resigned June 5, 1860†	Four years.
EBENEZER JOHNSON, elected in 1860, term expired April 3, 1865†	Five years.

OTIS NORCROSS, elected in 1865, and resigned January 15, 1867	One year and nine months.
JOHN H. THORNDIKE, elected in 1867, term expired April 6, 1868†	One year and three months.
NATHANIEL J. BRADLEE, elected April, 6, 1868, and resigned January 4, 1871	Two years and nine months.
CHARLES H. ALLEN, elected January 4, 1871, to May 4, 1873	Two years and four months.
JOHN A. HAVEN, elected May 4, 1873, to Dec. 17, 1874†	One year and seven months.
THOMAS GOGIN, elected Dec. 17, 1874, and resigned May 31, 1875	Six months.
L. MILES STANDISH, elected August 5, 1875, to July 31, 1876	One year.

Members of the Board.

THOMAS WETMORE, 1851, 52, 53, 54, and 55†	Five years.
JOHN H. WILKINS, 1851, 52, 53, *56, 57, 58, and 59†	Eight years.
HENRY B. ROGERS, 1851, 52, 53, *54, and 55	Five years.
JONATHAN PRESTON, 1851, 52, 53, and 56	Four years.
JAMES W. SEAVER, 1851†	One year.
SAMUEL A. ELIOT, 1851†	
JOHN T. HEARD, 1851†	One year.
ADAM W. THAXTER, Jr., 1852, 53, 54, and 55†	Four years.
SAMPSON REED, 1852 and 1853	Two years.
EZRA LINCOLN, 1852†	One year.
THOMAS SPRAGUE, 1853, 54, and 55†	Three years.
SAMUEL HATCH, 1854, 55, 56, 57, 58, and 61	Six years.
CHARLES STODDARD, 1854, 55, 56, and 57†	Four years.
WILLIAM WASHBURN, 1854 and 55	Two years.
TISDALE DRAKE, 1856, 57, 58, and 59†	Four years.
THOMAS P. RICH, 1856, 57, and 58†	Three years.
JOHN T. DINGLEY, 1856 and 59†	Two years.
JOSEPH SMITH, 1856†	Two months.
EBENEZER JOHNSON, 1857, 58, 59, 60, 61, 62, 63, and 64†	Eight years.
SAMUEL HALL, 1857, 58, 59, 60, and 61†	Five years.
GEORGE P. FRENCH, 1859, 60, 61, 62, and 63	Five years.
EBENEZER ATKINS, 1859†	One year.
GEORGE DENNIE, 1860, 61, 62, 63, 64, and 65	Six years.
CLEMENT WILLIS, 1860	One year.
G. E. PIERCE, 1860†	One year.
JABEZ FREDERICK, 1861, 62, and 63†	Three years.
GEORGE HINMAN, 1862 and 63	Two years.
JOHN F. PRAY, 1862	One year.
J. C. J. BROWN, 1862	One year.
JONAS FITCH, 1864, 65, and 66†	Three years.
OTIS NORCROSS, *1865 and 66	Two years.*
JOHN H. THORNDIKE, 1864, 65, 66, and 67†	Four years.
BENJAMIN F. STEVENS, 1866, 67, and 68	Three years.
WILLIAM S. HILLS, 1867	One year.
CHARLES R. TRAIN, 1868	One year.
JOSEPH M. WIGHTMAN, 1868, and 69	Two years.
BENJAMIN JAMES, *1858, 68, and 69	Three years.
FRANCIS A. OSBORN, 1869	One year.
WALTER E. HAWES, 1870†	One year.
JOHN O. POOR, 1870	One year.
HOLLIS R. GRAY, 1870	One year.
NATHANIEL J. BRADLEE, 1863, 64, 65, 66, 67, 68, 69, 70, and 71	Nine years.

GEORGE LEWIS, 1868, 69, 70, and 71	Four years.
SIDNEY SQUIRES, 1871†	One year.
CHARLES H. HERSEY, 1872	One year.
CHARLES H. ALLEN, 1869, 70, 71, and 72	Four years.
ALEXANDER WADSWORTH, *1864, 65, 66, 67, 68, 69, and 72	Seven years.
CHARLES R. MCLEAN, 1867, 73, and 74	Three years.
EDWARD P. WILBUR, 1873 and 74	Two years.
JOHN A. HAVEN, 1870, 71, 72, 73, and 74†	Five years.
THOMAS GOGIN, 1873, 74, and 75*	Three years.
AMOS L. NOYES, 1871, 72, and 75	Three years.
WILLIAM G. THACHER, 1873, 74, and 75	Three years.
CHARLES J. PRESCOTT, 1875	One year.
EDWARD A. WHITE, 1872, 73, 74, 75, and 76†	Five years.
LEONARD R. CUTTER, 1871, 72, 73, 74, 75, and 76†	Six years.
L. MILES STANDISH, 1860, 61, 63, 64, 65, 66, 67, 74, 75, and 76†	Ten years.
CHARLES E. POWERS, *1875 and 1876†	Two years.
SOLOMON B. STEBBINS, 1876†	One year.
NAHUM M. MORRISON, 1876†	One year.
AUGUSTUS PARKER, 1876†	One year.

* Mr. John H. Wilkins resigned Nov. 15, 1855, and Charles Stoddard was elected to fill the vacancy. Mr. Henry B. Rogers resigned Oct. 22, 1865. Mr. Wilkins was re-elected Feb., 1856, and chosen President of the Board, which office he held until his resignation, June 5, 1860, when Mr. Ebenezer Johnson was elected President; and July 2 Mr. L. Miles Standish was elected to fill the vacancy occasioned by the resignation of Mr. Wilkins. Otis Norcross resigned Jan. 15, 1867, having been elected Mayor of the City. Benjamin James served one year, in 1858, and was reelected in 1868. Alexander Wadsworth served six years, 1864-69, and was reelected in 1872. Thomas Gogin resigned May 31, 1875. Charles E. Powers was elected July 15, to fill the vacancy occasioned by the resignation of Mr. Gogin.

† Served until the organization of the Boston Water Board.

‡ Deceased.

BOSTON WATER BOARD, *Organized July 31, 1876.*

TIMOTHY T. SAWYER, from July 31, 1876, to May 5, 1879; and from May 1, 1882, to May 4, 1883.

LEONARD R. CUTTER, from July 31, 1876, to May 4, 1883.

ALBERT STANWOOD, from July 31, 1876, to May 7, 1883.

FRANCIS THOMPSON, from May 5, 1879, to May 1, 1882.

ORGANIZATION OF THE BOARD FOR YEAR 1882-83.

Chairman.

LEONARD R. CUTTER.

Clerk.

WALTER E. SWAN.

Superintendent of the Eastern Division of Cochituate Department.

EZEKIEL R. JONES.

Superintendent of the Western Division of Cochituate Department.

DESMOND FITZGERALD.

Superintendent of Mystic Department.

HIRAM CUTTS.

Water Registrar of the Cochituate Department.

WILLIAM F. DAVIS.

Water Registrar of the Mystic Department.

JOSEPH H. CALDWELL.

City Engineer.

HENRY M. WIGHTMAN.



CITY OF



BOSTON.

HIGHLAND STREET RAILWAY.

NINETEENTH LOCATION.

IN BOARD OF ALDERMEN, Oct. 8, 1883.

The Committee on Railroads, to whom was recommitted the petition of the Highland Street Railway Company for a location in Eliot and Kneeland streets, respectfully recommend the passage of the accompanying order.

For the Committee,

CHAS. V. WHITTEN,

Chairman.

Ordered, That, in addition to the rights heretofore granted the Highland Street Railway Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down a single track in Eliot street, from Columbus avenue to Washington street, and to change the position of the single track now laid in said Eliot street, between Tremont and Washington streets, so that it shall have and maintain two tracks on said Eliot street, with suitable curves and connections to connect said tracks with tracks already laid in Columbus avenue, Tremont street, and Washington street. Said company shall also have the right to lay down a double track on Kneeland street, between Washington street and Harrison avenue; a single track on Kneeland street, from Harrison avenue to a point between Albany and Lincoln streets; and a double track from the termination of said single track to the tracks of the South Boston Railroad Company in Kneeland street, with the right to

connect with the tracks of said South Boston Railroad Company; the tracks, curves, and connections located by this order being shown by red lines on a plan made by Arthur Hodges, Civil Engineer, dated September 7, 1883, and deposited in the office of the Superintendent of Streets.

The right to lay down the tracks located by this order is upon condition that the whole work of laying down the same, the form of rail to be used, and the kind and quality of material used in paving said tracks, shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them. Also, upon condition that the said Highland Street Railway Company shall accept this order of location, and shall agree, in writing, to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of its passage; otherwise it shall be null and void.

Passed.

FREDERICK E. GOODRICH,

City Clerk.

CITY OF



BOSTON.

CHARLES-RIVER STREET RAILWAY.

FIRST LOCATION.

IN BOARD OF ALDERMEN, Oct. 15, 1883.

The Committee on Railroads, to whom was recommitted the petition of the Charles-river Street Railway for the right to lay down tracks on Essex-street bridge, respectfully recommend the passage of the following order of location.

For the Committee,

CHARLES V. WHITTEN,

Chairman.

Ordered, That the Charles-river Street Railway Company shall have the right to lay down a single track from a point on Essex-street bridge, at the dividing line between the cities of Cambridge and Boston, over the Essex-street bridge and Essex street, to and across Brighton avenue to the boundary line between Boston and Brookline, with a turnout on said Essex street; the track and turnout, located by this order, being shown by red lines on a plan made by Arthur Hodges, civil engineer, dated September 8, 1883, and deposited in the office of the Superintendent of Streets. The right to lay down the tracks located by this order is upon condition that the whole work of laying down the same, the form of rail to be used, and the kind and quality of material used in paving said tracks, shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them; also, upon condition that the said Charles-river Street Rail-

way Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of its passage; otherwise it shall be null and void.

Passed.

FREDERICK E. GOODRICH,

City Clerk.

CITY OF



BOSTON.

REQUEST

FOR

ADDITIONAL APPROPRIATION

FOR

STONY-BROOK IMPROVEMENT.

IN COMMON COUNCIL, October 18, 1883.

The Joint Special Committee on Stony-brook improvement respectfully represent that an additional appropriation of \$7,500 will be required to complete the work that it is necessary to finish during the present season. The improvement is now finished to Morton street. It is desired to extend it as far as Hyde Park avenue, to connect with work already done to that point. This will make a continuous piece of completed work from the westerly side of Washington street, in West Roxbury, to the outlet.

The following statement shows the expenditures to date : —

STATEMENT OF THE EXPENDITURES IN THE IMPROVEMENT
OF STONY BROOK DURING THE CURRENT FINANCIAL
YEAR.

Balance of appropriation of 1882-3 remaining unexpended May 1, 1883, according to the Auditor's report	\$433 41
Appropriation for 1883-4	40,000 00
Total available funds May 1, 1883	<u>\$40,433 41</u>

Expenditures.

Section between Boylston and Brookside
avenues, — excavation done by the day;
stone work by contract: —

Labor and teaming in earth and rock excavation, in preparing new channel, removing deposits from channel completed last year, and levelling earth left on the banks in 1882	\$3,191 13
Stone wall furnished and laid, including additions made to height of a portion of the wall laid last year	3,054 00

Section between Green and Washington streets,
under contract with Arthur Putterill: —

4,272 cubic yards of earth excavation	2,349 60
1,203 perches of stone wall, estimated at \$3.00 per perch	3,609 00

Upon this section work was performed by the
city as follows: —

In cutting a drainage channel to Washington street to facilitate the work on the section beyond; in laying a stone invert across the channel at Green street to protect the foundation walls of Mr. P. Meehan's building, and in moving a large deposit of mud from that portion of the channel near Washington street, and from the arches under Washington street which were completed last year, ...	2,118 80
---	----------

Section between Washington and Morton
streets, — excavation done by the day; stone-
work by contract: —

Earth and ledge excavation	8,908 64
Stone walls to southerly line of Williams street, including the bridge abutments which were taken down and wholly rebuilt, 402 perches	1,022 25
Channel walls, Williams to Morton street, 451 perches, @ \$2.75	1,240 25
1,871 perches, @ \$2.45	4,583 95

Amount carried forward,

\$30,077 62

<i>Amount brought forward,</i>	\$30,077 62
Morton-street bridge : —	
Removal and rebuilding, including cost of new material	2,696 71
Section from Morton street to Hyde Park avenue, — excavations by day work; stone-work by contract : —	
Excavation of earth and ledge, including the removal of silt from arches under Hyde Park avenue	1,521.97
Stone wall furnished and laid, 135 perches, at \$2.65 per perch	357 70
Earth excavation beyond the culvert under Hyde Park avenue and Washington street, about 437 linear feet	1,059 25
Total expenses in excavation and stone-work, from May 1 to date	\$35,713 25

Miscellaneous Expenses.

Lumber tools, engineering, blacksmithing, and repairs, for the entire work to date	\$3,909 51
Cochituate water bill, for water furnished and pipe laid for Boston Belting Co., 1881-2	2,798 73
Paid Anna M. Amory, land damage, ...	2,146 28
	8,854 52
Total expenditures, May 1, to date	\$44,567 77
Total credit, May 1, 1883	40,433 41
	\$4,134 36
Balance on hand, Oct. 1	653 72
Deficiency	\$3,480 64
Required to complete the work to Hyde Park avenue, for stone-work	1,260 00
To meet contractors' claims for extras, not yet allowed, and to protect the covered channels during the winter	2,759 36
Additional appropriation required	\$7,500 00

Respectfully submitted,

P. JAMES MAGUIRE.

CITY OF



BOSTON.

REPORT

OF

COMMITTEE ON FIRE DEPARTMENT

UPON

PROPOSED REORGANIZATION OF CERTAIN
FIRE COMPANIES.

MAJORITY REPORT.

IN BOARD OF ALDERMEN, October 15, 1883.

The Joint Standing Committee on Fire Department, to whom was referred the report of the Committee on Finance on the request for an additional appropriation for the purpose of increasing the pay of call-men, engine-men, and assistant engine-men, having considered the subject, respectfully report as follows:—

It should be understood that the change proposed by the Committee on Finance will involve a reduction in the number of men in the districts affected. For instance, engine companies will be reduced from 11 or 12 to 7 men, hose companies from 9 to 4 men, and hook and ladder companies from 12, 14, 16, and 18 to 8 men. These districts are principally occupied by wooden buildings, and it is important that a sufficient force should be present at the outbreak of a fire to quell it in its incipient stage. This, in the opinion of your committee, cannot be done if the force is reduced as proposed, and they believe that the efficiency of the department would be greatly impaired by the change.

It should also be understood that the proposed change would involve an increase of \$70,000 per annum over the present cost of maintaining the Fire Department, plus the increase in salaries recommended by your committee. The committee are of the opinion that it is inexpedient to adopt the change proposed by the Committee on Finance, and respectfully renew their recommendation in regard to increasing certain grades of pay ; but, inasmuch as several months have passed since the estimate was made, an appropriation of \$20,000 will be sufficient for the remainder of the year. The committee think it would be well for the Fire Commissioners to consider the expediency of placing one permanent company, of full strength, in each of the outlying districts, as that would undoubtedly add to the efficiency of the department.

For the Committee,

WM. WOOLLEY,

Chairman.

MINORITY REPORT.

The undersigned member of the Committee on the Fire Department begs to dissent from the majority report in relation to the order reported by the Committee on Finance and referred to this committee, appropriating thirty thousand (\$30,000) dollars to enable the Board of Fire Commissioners to reorganize the several fire-companies in Charlestown, East Boston, South Boston, and Roxbury on a permanent basis, and to increase the salaries of the call-men in the department. The Committee on the Fire Department did not invite any member of the Board of Fire Commissioners before them, or ask the opinion of that Board in relation to that important order, as, in my judgment, should have been done. I have therefore been obliged to investigate this matter on my own account, and the result has been an acquiescence in the report of the Committee on Finance, and for the reason set forth by that committee. The districts above mentioned have become so thickly settled, and the fire-companies in them are obliged so frequently to respond to second and third alarms in the heart of the city, it seems to your committee that justice demands that they should be organized on the same basis as those in the city proper. No person will for a moment attempt to argue that call-companies are superior to permanent ones. The advantages of a department under the latter system are that the men are more thoroughly trained in their business, arrive at the scene of the fire with their apparatus, and are always at hand when wanted. The disadvantages of the call-system are, that the men who compose a company are at work at their avocations, and, when the fire-alarm calls, may be a mile away from the scene, and have to run all the distance, often arriving in an exhausted state. It is a relic of the old volunteer system, long since discontinued in our city. It is an axiom among firemen that the first five minutes at a fire are worth an hour's work after. If this be so, its truism admits the great advantages of a permanent force over a call one. Doubtless one reason why these companies have not heretofore been organized on a permanent basis was on account of the expense. But now that reason cannot hold good, for to increase the salaries of all

the call-men in the department will, according to the report of the Fire Commissioners, require an additional appropriation of forty thousand (\$40,000) dollars; and the difference between that amount and the sum necessary to place the companies in the districts mentioned on a permanent footing is so small, and the advantages to be obtained are so great, in securing more efficiency, more expedition in responding to fires, and quicker work when arriving at the scene of action, that the City Council should not hesitate about passing the order reported by the Finance Committee, who evidently investigated the matter very thoroughly. The fact that a few men connected with the Fire Department are opposed to the change, and have been working against it, should have no influence with the members of the City Government in a matter which so directly concerns the protection of life and property. The history of the Boston Fire Department is a history of reforms and radical changes for the better, all accomplished in direct opposition to many who belonged to it and believed in no change whatever. Your committee understand that a majority of the Board of Fire Commissioners favor the change, and recommended the same to the Committee on Finance. The Boston Fire Department should be on as permanent a basis as New York, Philadelphia, Chicago, or St. Louis. The Board of Underwriters of the city saw the disadvantages of the call-system, and within a short time placed the protective department on a permanent basis. For the reasons given in this report, as well as those advanced by the Committee on Finance, the undersigned, differing from the majority of his associates, would respectfully report, that the report and order of the Finance Committee, in relation to appropriating thirty thousand dollars (\$30,000) from the reserve fund, transferring the same to the Fire Department, ought to pass.

Respectfully submitted,

JAMES H. GALLAGHER,

Minority of the Committee on Fire Department.

IN BOARD OF ALDERMEN, Oct. 15, 1883.

Laid on the table and ordered to be printed.

Attest:

FREDERICK E. GOODRICH,

City Clerk.

CITY OF



BOSTON.

REQUEST

FOR

BETTER HOSPITAL ACCOMMODATIONS

AT

DEER AND RAINSFORD ISLANDS.

OFFICE OF THE BOARD OF DIRECTORS FOR PUBLIC INSTITUTIONS,
No. 30 PEMBERTON SQUARE, BOSTON, Oct. 15, 1883.

*To the Honorable the Mayor and the City Council of
Boston: —*

GENTLEMEN, — The Board of Directors for Public Institutions have for several years past had under consideration the subject of the condition of the hospitals at Deer and Rainsford Islands, particularly that at Deer Island, and at a meeting of the Board held on the 12th inst., the subject received especial attention, in consequence of a report from the Monthly Visiting Committee, and a communication from the resident physician at Deer Island, which stated in full and at considerable length the objections to, and disadvantages of, the present hospital system at that institution; whereupon it was unanimously voted, That the President be requested to again call the attention of the City Council to the immediate need of better hospital accommodations at both these places.

The hospital building at Rainsford Island, though fifty years old, is well located, and suited to its purpose. At present the two floors and attic are fully occupied. There are now forty patients under treatment. In consequence of the great increase of chronic and distressing cases the hospi-

tal requires enlargement to provide for a classification of the patients, and for suitable dining-rooms, and other conveniences much needed for the proper treatment of this unfortunate class of inmates.

The attention of the City Council was specially called to the condition of the Deer Island Hospital in a communication from the Directors dated February 18, 1882, which was printed as City Document No. 50, 1882. At that time the Board requested a special appropriation of \$60,000, for the purpose of erecting an addition to the main building of the House of Industry, which would afford dining-room, hospital, and other needed accommodations. This request was not granted, and was renewed in the same form in February of the present year, in the hope that the amount required might be included in the annual appropriations for the institutions; but again the request was not complied with. In the meantime the number of inmates has steadily increased, and the demand for room in the main building has been so great as to lead the Board to the conclusion that the necessity for a hospital building separate from the main building is imperative, and cannot longer be deferred without risking the good reputation which the city has always enjoyed for its comfortable and humane care of the sick and dependent classes in its public institutions.

The hospitals at Deer Island are in the attic stories of the north and south wings of the main building; and the number of patients has increased to such an extent as to cause great overcrowding, much to the annoyance and danger of the sick who are in the hospital. Many, who though able to be about the institution, would be greatly benefited by hospital care and treatment, are excluded by reason of its crowded condition. In these small and primitive wards more than two thousand patients, afflicted with almost every form of disease, were treated during the past year; or about one-half the number of cases treated at the City Hospital during the same period of time. The wards are so crowded that it often becomes necessary to place mattresses upon the floor between the beds. The arrangements for heating these rooms are entirely inadequate.

The hospital for pauper women is situated on the floor next beneath the House of Industry Hospitals, and is more commodious, and better lighted and heated.

In a separate hospital building all the sick now treated in the main building would be removed from noise and disturbance, and the entire institution would be benefited by the change. It is now impossible to prevent the bad air arising in these various hospital wards from pervading the work-

shops, dormitories, and dining-rooms of the institutions. By this removal an entire separation of the paupers from the prisoners, and a classification of patients, according to the nature of their diseases, can be effected, and means furnished for the isolation of cases of insanity and delirium tremens.

The erection of a separate building would also provide more dormitory room for the prisoners, who now tax the accommodation in the main building to its utmost limit, — endangering the general health of all the inmates.

These are but some of the many considerations which demand the Board to urge upon the City Council the great necessity which exists for hospital accommodation at Deer Island, and to request most earnestly that measures be taken immediately to provide the required relief. It would seem to the Board that no strenuous effort should be required on its part to prevail upon the City Council to grant an appropriation for this purpose. The condition of the hospital was noticed and commented upon by several members of the Council on its recent visit to Deer Island. In all the public institutions the tendency is in the direction of a more discriminating classification of the sick, not only to apply the best methods of treatment of disease, but to guard the health and general good of all the inmates. In the discharge of its duty the Board of Directors cannot longer delay this statement of facts, nor continue to assume the responsibility of their longer existence.

For the Board of Directors,

Respectfully,

A. T. WHITING,

President.

IN BOARD OF ALDERMEN, Oct. 15, 1883.

Referred to Committee on Public Institutions, and ordered printed.

Attest :

FREDERICK E. GOODRICH,

City Clerk.

CITY OF



BOSTON.

REPORT

OF

SPECIAL COMMITTEE OF THE COMMON COUNCIL

IN REGARD TO THE

SOUTH BURYING-GROUND ON WASHINGTON STREET.

The Special Committee of the Common Council, instructed by votes of May 31st and October 18th, 1883, to report the value of that part of the South Burying-Ground which the New England Conservatory of Music wished to obtain, and also to give a public hearing to all parties interested, beg leave to report that they have given two extended hearings, and submit herewith the evidence as taken.

In regard to the value of the land so much depends upon a full knowledge of former acts of the town and city that your committee has deemed it proper to submit the information they have obtained in the following

R E P O R T .

The South Burying-Ground lies between Washington and James streets, and within the square formed with them and East Newton and East Concord streets. The name, as a local one, has been applied in former times, also, to the Granary Burying-Ground and then to the Cemetery on the Common. The land thus appropriated was undoubtedly originally town-land, a portion of the possessions of Boston remaining after grants had been made.

The establishment of this yard seems to be fixed in the year 1810, by the following extracts from the Town Records :—

In Town Meeting, under date August 3, 1810, is a vote: "That the Selectmen be requested to locate such tract of land belonging to the Town on the Neck, as in their judgment shall be sufficient and best adapted for a burying-ground, and to enclose and prepare the same for that purpose."

At a meeting of the Selectmen August 3, 1810, "After the Town meeting was dissolved, the Board assembled and agreed to proceed and view the land on the Neck, agreeably to the directions of the Town, on Monday next at 10 o'clock, for the purpose of selecting a suitable spot for a burying-ground."

At a meeting of the Selectmen August 8, 1810, "A plan of the proposed burying-ground on the Neck was presented by the chairman, and estimates for fencing the same."

"Mr. Porter and Mr. Hunnewell were desired to confer with the workmen and contract for the fence in proper terms."

It would seem that this burial-ground is now seventy-three years old, — a fact which excludes it from the provisions of Public Statutes, Chap. 82, §16, which state that "no city or town shall alienate, convey or appropriate for any other use than that of a burial-ground, any tract of land which has been for more than one hundred years used as a place of burial for the dead," etc., etc.

It appears that, from 1810 to 1827, interments in this yard were made in graves only. The City Registrar, in a document printed in Appendix A, certifies that his records show the burial of 4,610 bodies in graves, prior to 1831. The ordinances of 1834 show that a new ordinance was passed September 26, 1833, prohibiting the digging of graves in the Central, Chapel, and Granary yards, and the old part of the North yard, but prescribing such burials in the North and South yards. In these yards "the said graves to be dug in exact ranges parallel with and as near to each other as the said superintendent shall think fit and proper." "No new range of graves shall be commenced, until the preceding range shall be taken up by deposit of one or more bodies therein."

Moreover, the family of any person buried in a grave was allowed to place a stone above it, when "such grave shall be reserved for use of said family twenty years, and graves may be reopened for members of the same family."

The fees were, "to the city seventy-five cents for each person buried," and considerable sums to be paid to the licensed undertakers. It is evident that the persons buried

in this yard were not necessarily paupers, — a fact borne out by the record of names ; and it may seem, also, that the payments made established some rights in the soil which the city is bound to respect.

In 1827 a change was made in regard to the form of burials in this yard. In Appendix B will be found the action of the city in establishing a row of tombs around the entire yard, serving as a fence, while enlarging the capacity of the ground. Shurtleff (Top. and Hist. Description of Boston, p. 244) says the tombs numbered 162, and that the dimensions of the yard were 305 feet by 314 feet. The existing plans of the yard show that these tombs were of a uniform size, $10\frac{1}{2}$ feet in depth from front to rear. Various statements as to the number annually built, the cost and the purchases, will be found in the records of the old Board of Health, now in the custody of the City Registrar.

In one of these books of records is the following entry. The order fixes the date as December 2, 1839 : —

“The Committee on Burial Grounds and Cemeteries ask leave to report to the Mayor and Aldermen the condition of said grounds which are under their particular charge and direction, together with a brief history of the doings of the committee during the current year.

“First. It has been the policy of the Mayor and Aldermen for a number of years past to erect from eight to ten tombs per annum upon the margin of the South Burying-Ground. The current year your committee have erected nineteen, which completes the whole number required, and incloses the whole ground. The city now own in said ground eighty-six tombs, forty of which are for sale, and forty-six are reserved for the burial of the poor and those persons who have no place to [bury?] their friends, but who are able and willing to pay for the use of a tomb for that purpose. This class of tombs produced last year \$313. *This burial-ground being now closed*, and the margin completed by the display of splendid tombs, it only requires to have the lower part of it covered with trees and shrubs, similar to the front part, to be one of the most splendid cemeteries that there is within the State of Massachusetts.”

In Appendix C will be found a list of the owners of the tombs, as preserved in the records of the Health Department, now having the custody of the yard. The tombs are numbered as follows, beginning at the north corner on Washington street : Nos. 1 to 18 to the gate ; then southerly along that street, Nos. 19 to 36, consecutively. Then tombs Nos. 37 to 109, *the odd numbers only*, on the north line nearest to and parallel to East Newton street ; Nos. 38 to 110, *the even numbers only*, on the south line nearest to Concord street. In both cases these numbers begin at the west end of the line on Washington street. Then Nos. 111 to 145, *odd numbers*, parallel to James street, are north of the gate. Nos. 112 to 146, *even numbers*, are south of the gate, and parallel to James street.

There was also a row outside of these, numbered consecutively from 1 to 38, which occupied the space now covered by the westerly sidewalk of James street, which tombs were removed when that street was laid out. It is understood that about one-half of the tombs on the northerly side (say Nos. 85 to 109) and all those on the easterly side (Nos. 111 to 146, as well as outside tombs Nos. 1 to 38) were owned by the city, and used to inter the poor.

In 1856 James street was laid out from Newton street to Concord street, and although the records of the Superintendent of Public Lands have been searched, nothing therein seems to be so definite as are the following extracts from the records of the Board of Aldermen. By them it appears that the tombs were emptied and torn down, the street built and a stone wall erected, during the years 1856 and 1857, and that James street was duly named, Dec. 2, 1857. (See papers in Appendix D.)

It will be noted that the north-westerly line of tombs, forming the boundary of the yard, abutted against the estates on East Newton street. One of the lots was occupied by the piano-forte factory of Hallett, Davis, & Co., and about the year 1859 Mr. George H. Davis of that firm seems to have intended to enlarge his estate. He bought the rights in the tombs on the north line, from 37 to 81 inclusive (the tombs bearing only the odd numbers, though standing in a row), some twenty-three in all. The deeds are mostly recorded in a book kept by the city, and it is beyond reasonable doubt that he succeeded in his object, though your committee has not made an exhaustive examination of his titles.

On Sept. 27, 1864, the factory was destroyed by fire, and the falling walls crushed the tombs adjoining. Apparently Mr. Davis intended to rebuild, for in September, 1865, he bought of the city (Suff. Deeds, Lib. 868, f. 297) a strip of land 26 feet wide and $306\frac{1}{2}$ feet long, running from Washington street to James street.¹ In regard to this land

¹ The description is as follows:—

“Beginning at a point on the north-westerly side of James street, distant sixty-four feet south-westerly from the westerly corner of James and Newton streets; thence running south-westerly, bounded by James street, twenty-six feet; thence north-westerly parallel with said Newton street, two hundred and ninety-five feet and ten inches; thence north-westerly, parallel with Washington street, — and distant ten feet and six inches therefrom, — fifteen feet and six inches; thence south-easterly, parallel with said Newton street, one hundred and eighty-five feet and eight inches; thence north-westerly at right angles with the last described line, ten feet and six inches; and thence south-easterly, parallel with Newton street, one hundred and ten feet and three inches, to the point of beginning: containing $5,743\frac{3}{4}$ square feet, more or less.”

Also, a certain other parcel adjoining, which is described as follows:—

“Beginning at a point on the south-easterly side of Washington street, distant sixty-four feet and one inch, south-westerly from the southerly corner of Washington and Newton streets, — bounded by Washington street twenty-six feet; thence south-westerly parallel with said Newton street ten feet and six inches; thence north-east-

it appears that a part, $10\frac{1}{2}$ feet wide and 196 feet $2\frac{1}{2}$ inches long, reaching from Washington street, being the northerly quarter of the tract, as also a lot $15\frac{1}{2}$ feet by $10\frac{1}{2}$ feet adjoining it, were sold on condition that "the city doth not make any warranty, express or implied." The remainder of the lot was with warranty. Looking at the annexed plan, it appears evident that the $2,222\frac{3}{4}$ sq. feet, *quitclaimed* by the city, covered the row of tombs sold by the city and acquired by Davis of those holders, while the $5,743\frac{2}{3}$ sq. feet, *warranted*, covered the tombs always held and used by the city, and apparently a strip of $15\frac{1}{2}$ feet taken from the open graveyard.

The action of the Board of Aldermen, sitting as the Board of Health, in March, 1866, hereinafter cited, makes it probable that there was an encroachment upon the space covered by graves at this time and to this extent. By this deed an open passage-way ten feet wide was reserved along the line of the burial-ground.

It seems that the project of building was not carried out by Mr. Davis, and Dec. 13, 1866, he sold (Suff. Deeds, Lib. 891, fol. 1) to Mary Anne, wife of Maturin M. Ballou, all of this property.

On April 24, 1867, the City of Boston sold to Mrs. Ballou the north-east corner of the graveyard, by deed recorded in Suff. Deeds, Lib. 898, fol. 31. The lot began on James street at a point 90 feet from Newton street, then 110 feet on James street to Rutland street extended, then 110 feet on said extension, making a square of 12,100 square feet, immediately adjoining the Ballou estate. The price was one dollar per square foot.

On the land thus acquired was built the St. James Hotel, now the New England Conservatory of Music. The land now asked for is 100 feet wide and 110 feet deep, and abuts on the lot before taken from the yard for building purposes. The whole space on the line of Rutland street extended is 305.91 feet, so this is a little over one-half of the existing open land on the north side of that line; it is about one-sixth of the original open yard.

The first question to be considered is the legal right of the city to sell a portion of the public burying-ground for any purpose. Before the sale to Mrs. Ballou, evidently this question was raised, and by certain orders of the Board of Aldermen, acting as a Board of Health, dated March 5,

wardly, parallel with Washington street, fifteen feet and six inches; thence south-easterly again parallel with Newton street, one hundred and eighty-five feet and eight inches; thence north-easterly at right angles with the last described line, ten feet and six inches; and thence north-westwardly parallel with said Newton street, one hundred and ninety-six feet and two and one-half inches, to the point of beginning: containing $2,222\frac{3}{4}$ square feet, more or less."

1866, and printed in Appendix E, it was voted "that the South Burial-Ground be discontinued, and that the Committee on Public Lands, subject to the approval of the Mayor, sell all the city's interest in the fee, or otherwise, of the land in the said yard."

At this date the Aldermen constituted the Board of Health, under the ordinance of May 21, 1853, our present Board being established by ordinance, Dec. 2, 1872. It is to be presumed that the closing of the burying-ground was strictly in conformity with the law then in force in Gen. Stat., Chap. 28, which is cited by the Board in its proceedings.

But just at this point the question arises whether the Board attempted to do more than the law intended or allowed. To close the yard to farther interments, or, as has been done at Worcester, to cover all the graves with a thick layer of earth for sanitary reasons, is quite a different matter from proceeding to sell the graves for other uses. That the Aldermen in 1866 voted to sell the whole yard, and that it did in 1867 sell one-sixth of it, are evident and painful facts. Unfortunately there is little, if anything, in the statutes to enable us to decide upon their right so to act. Your committee has asked and obtained from the Corporation Counsel his opinion on the subject, herewith submitted.

CORPORATION COUNSEL'S OFFICE,
2 PEMBERTON SQUARE, BOSTON,
October 20, 1883.

To the Committee on the South Burying-Ground:—

GENTLEMEN,—The city unquestionably owns in fee-simple the South Burying-Ground and can quitclaim its estate therein without incurring any liability. I do not feel so certain (since it is impossible to determine by the records) that no persons have at any time acquired rights in the land, which still survive; and though, in my opinion, the existence of such rights is too shadowy to seriously affect the city's title, yet, to avoid a possibility of legal controversy, the City Council should, I think, provide for the removal of the bodies that lie buried there, before attempting a sale of the land.

Very respectfully,

E. P. NETTLETON,
Corporation Counsel.

It seems, therefore, to be indispensable that the removal and reinterment of all human remains must be effected before the city can safely sell the land. At the hearing given by your committee, the representatives of the petitioners conceded that this removal was necessary, although the matter

had not been considered by them before. The Conservatory of Music insists upon a clear title to the land, as otherwise it would be useless to them; and the city must follow the suggestions of its legal adviser if it would be safe from future reclamations.

Obviously, also, this removal must be attended to by the city. No bond from the intended purchasers should be accepted as sufficient to discharge the city from the moral obligation to afford to these remains reverent treatment. But the undertaking is one which may well demand the most deliberate consideration of the City Council.

It is beyond dispute that at least 4,600 bodies were placed in this yard, and that the sixth part now sought for must contain the remains of some 800 persons. When the adjoining lot was taken for a wing to the St. James Hotel, the necessary excavations for foundations caused sights which shocked the community. Many of our citizens will remember with disgust and indignation the desecration of that yard at that time. In Appendix F will be found the statement of one eye-witness.

Of course any attempt to erect a large building over another large section of this yard will necessarily cause similar horrible disclosures; it is for the City Council to say if there is a public necessity warranting the painful act.

Your committee, as instructed, gave a public hearing to the petitioners and remonstrants, and submit a report of the evidence herewith, in Appendix G. From this testimony much can be learned, and it brings to light new evidence upon the points considered in the report of your committee.

It seems to have been the custom, both with the city and State, in granting public lands to educational and charitable institutions, to grant to such institutions only the perpetual use of the land, the fee of the same remaining in the city or State. The grant to the Institute of Technology by the State of Massachusetts, and also that by the City of Boston to the Massachusetts Homœopathic Hospital, in 1881, were both on this basis, and the land on which our new Public Library will stand, or so much of it as was given by the State, comes under the same restriction. It should be stated, however, that the grant to the Institute of Technology was so modified by subsequent legislation as to permit said institute to sell its land in what is now Copley square, and purchase land elsewhere for its chemical laboratory and workshop.

It seemed to your committee that, if it were advisable to grant the prayer of the petitioners, the manner of procedure was indicated in the cases cited. The representatives of the

Conservatory were asked if they would accept the land under the same conditions ; and declined positively to do so. They would be unable, they said, to raise the money necessary for the building of their hall, if the land on which it was to stand were encumbered with any such condition. The public, they claim, would not respond to their solicitation for funds, unless they possessed an absolute title to the land. A gentleman who appeared in their behalf (Hon. E. S. Tobey), in the course of his remarks stated to the committee the circumstances under which the funds for the Institute of Technology were raised. It appears that one condition of their grant from the State was "that the building should be erected and utilized for the purpose proposed within one year from the passage of the act." An extension of the time was subsequently granted, but the fee of the land remained, and still remains, in the State ; and the school raised over \$100,000 by private subscription for the erection of its building, \$75,000 being given by one individual. The petitioners prefer to have a warranty deed for the property ; but this your committee feel is out of question. The fact already cited, that some 800 bodies, more or less, lie buried in the space desired, makes it unnecessary to consider this question further, until the city has taken action looking to removal of the dead, and accorded them a proper burial elsewhere.

The opinion freely expressed was, that in event of any transfer of the property this should be done. Petitioners and remonstrants alike conceded the necessity of such measures, their only point of difference being the manner in which this should be accomplished. Some considered it sufficient to have the purchasers execute a bond, binding themselves to perform the work, or for the city to place such a stipulation in the deed ; but that it should be done, in the event of any transfer, was universally conceded. It would be unwise, your committee feel, for the city to trust so delicate a task to any but its own servants, and, considering the number to be cared for, it would be no small task. The position assumed by the Corporation Counsel, in his communication already cited, is in accordance with this opinion ; and it is apparently beyond dispute that the city is bound to take proper measures to remove these bodies before disposing of the land.

A glance at the plan of the land desired by the Conservatory will show that the position is not the one most to be desired for building a large public hall. The petitioners, in their opening remarks, admit, that it is "90 feet distant in its nearest point from any street," and "entirely inaccessible except through the burying-ground." It is also separated

from the Conservatory building by a ten-foot passage-way that must remain open, and on this land "it is in contemplation to erect a hall, as large or larger than Music Hall, which shall be in its building and all its appointments a credit and pride to the city of Boston, and second to none in the country in its acoustical and other desirable qualities." The plans for this hall were not far enough advanced to submit them to your committee. All that had been done, as far as we were able to learn, had been done in a general way, and nothing specific had been determined upon. When asked regarding the exits from the hall the petitioners' reply was as follows :—

"The CHAIRMAN. — Where would those exits be? A. One of them will be where the ladies' entrance is, which is about 20 feet wide, on East Newton street. That will be the main entrance. Another entrance would be through the middle of our building, on James street, which we have made calculation for. Another entrance would be through a passage-way which we have at present, which is 10 feet wide. We could make that passage-way wider if we chose, as we have an open lot back of the building. We could make that wider if required by the city, and that would give us three ample entrances to the building without encroaching upon the vacant lot which has been referred to."

It would seem as though a public hall of the size of this one should be in a place to afford large exits directly to the street.

The main exit will pass directly over the 10-foot passage-way, and through the Conservatory to East Newton street, and will be about 20 feet wide. Another they propose to carry to James street, over the vacant land between their building and the site which they desire from the city, and then through the wing of their building to the street. (The distance from James street to the line of the proposed hall will be about 110 feet.) The third will open on the 10-foot passage-way which lies between the Conservatory and houses on Newton street and the burying-ground, and extends to James street under an arch in the ell-part of the Conservatory.

Your committee doubt whether the Inspector of Buildings would permit this condition of things, but cannot speak definitely, having had no consultation with him. It would seem, however, in view of the fact that public attention has been so sharply drawn of late to the condition of our theatres and public halls in this particular, that some more direct and commodious entrance would be required. This could only be accomplished by the extension of Rutland street through

the burying-ground, and in the event of such extension the value of the land would be enhanced.

The object for which your committee was primarily appointed was to ascertain the value of the land desired. The assessors value the entire burying-ground, containing 75,000 square feet, at \$150,000, or \$2 per foot. The land on which the Conservatory building (formerly the St. James Hotel) stands is assessed at \$1.50 per foot, both on Newton and James streets. The other estates on Newton street, between the Conservatory and Washington street, vary from that amount to \$3.50 and \$4 per foot. In 1867, the land on which the ell-part of the Conservatory building stands, was sold by the city for \$1 per foot. The city has sold since then some of the land in the 10-foot passage-way already referred to, at \$1 per foot, and quitclaimed other land that was covered by tombs, and is now part of this same passage-way. The 11,000 feet asked for adjoin the above tracts, but at present are in that part of the ground least easy of access. Should the extension of Rutland street ever be accomplished, however, this land would become at once available as land fronting on that street. This will be readily seen by a glance at the plan. Your committee, therefore, feel that it is not right to say that the land at present has little or no value. The four tombs on this land cover but a small portion of the lot, and even if the city should quitclaim, as it did in the case of the land in the passage-way, the space covered by these tombs, the largest part of the tract would remain, and the purchaser would have to settle with the owners of the tombs. The New England Conservatory of Music claims to have acquired the right and title to these tombs, and now asks the city to convey to them the land. This institution was incorporated in 1867, and empowered to hold property to the amount of \$100,000. A full history of it is given by the gentleman who opened the hearing for the petitioners. In 1882, after having outgrown their quarters at Music Hall, the New England Conservatory of Music purchased what was then the St. James Hotel, on East Newton street, paying for it \$275,000, and giving in payment mortgages to the amount of \$120,000, \$105,000, and \$50,000, respectively. This amount, according to the statement of its secretary, has been slightly reduced, and all the expenses of the institution met during the past year. Your committee were desirous of obtaining a clear statement of the financial condition of the institution, and asked the secretary if they were willing to have their treasurer submit, *in confidence*, to the committee, a statement of their assets and liabilities. This they declined pos-

itively to do, unless the committee would first name them a price for the land.

The financial condition, therefore, of the institution, so far as your committee could judge, is simply this : —

The Conservatory has purchased its building, and mortgaged it for the full amount of the purchase-money. On this they have paid a comparatively small amount, and now have a large school of music, languages, and fine arts to support from their receipts, as well as to pay the interest on their debt, and the debt itself as it becomes due. In addition, should they obtain the land, they propose to erect a large hall, to pay for which they must rely on private subscription, or on mortgaging the building and land, thus adding to their liabilities as well as to their assets. Besides these they have in addition what might be termed their hotel expenses, for many of the students are lodged and boarded in the building itself. On the other hand, many of our most prominent and wealthy citizens are friends and warm supporters of the institution, and in its Board of Trustees are found the names of some of Boston's most successful merchants.

Taking all the circumstances into consideration, your committee do not feel justified in recommending any conveyance of the land at present, and fail to see any public necessity for so doing. In reaching this conclusion they have not forgotten the cause that the New England Conservatory of Music represents. Its purposes are those of education, and Boston has always stood foremost therein. It represents the higher and finer standards of education, however, that have heretofore been supported by private munificence, and so worthy a cause will undoubtedly receive the support from this source that it merits. Its success in the past has been unquestioned, and, while looking forward with hope, your committee are not in possession of facts that warrant them in assuming that its future success is a matter beyond doubt. Whether the city conveyed the land for a consideration, or not, the fact remains that the petitioners decline to accept the "perpetual right to hold, occupy, and control, free of rent or charge," the land in question, and the city must part with its right and title forever in the event of a transfer.

Your committee have been impressed by the fact that the legislation in regard to burial-grounds is in a very unsatisfactory state. The city owns a large amount of land devoted to the interment of the dead, and it seems proper that its duties, and the rights of those who have caused interments in its land, should be clearly defined by statute.

Your committee return the order referred to them, and respectfully recommend an indefinite postponement of the same.

EDWARD P. FISK,
WILLIAM H. WHITMORE,
JAMES GOODMAN,

Special Committee of the Common Council.

Scale 100 feet to an inch.

APPENDIX A.

OFFICE OF CITY REGISTRAR, CITY HALL,
BOSTON, Aug. 6, 1883.

WM. H. WHITMORE, Esq. : —

DEAR SIR, — From the year 1810 to 1831, both years inclusive, there were buried in the ground in the South Cemetery, 4,610 bodies. I may have overlooked a very few bodies, not over a dozen, I am sure ; but the number I have indicated, however, were buried there. As those buried from 1832 and onward were deposited in tombs, and I found none that were put in the ground, I presume burials in the ground were prohibited in the last-named year.

Yours very truly,

N. A. APOLLONIO.

APPENDIX B.

IN BOARD OF ALDERMEN, March 26, 1827.

Communication of the Superintendent of Burial-Grounds, praying that a committee may be appointed to direct what repairs shall be made in the wall of the burial-grounds on the Neck.

Read, and committed to Aldermen Bellows and Alger to consider and report.

IN BOARD OF ALDERMEN, April 9, 1827.

Memorial of the Superintendent of Burial-Grounds, relative to repairing the fence of the burial-ground on the Neck.

Read, and committed to Alderman Bellows and Loring, with such as the Common Council may join, to consider and report. Sent down for concurrence. Came up concurred, and the Common Council joined on its part Messrs. Wright, Gould, and Lewis.

IN BOARD OF ALDERMEN, July 23, 1827.

The Committee of the City Council to whom was committed the communication of Samuel H. Hewes, Superintendent of Burial-Grounds, ask leave to report, That the object of this communication was to draw the attention of the City Council to the dilapidated state of the fence surrounding the burial-ground on Washington

street, at the south part of the city. On examination by your committee it appears that the fences inclosing this ground are altogether insufficient to afford the necessary protection to this sacred spot. To rebuild a fence similar to the present one would be attended with an expense of five or six hundred dollars. To obviate this expenditure of money the following plan is suggested. It has been ascertained that a number of gentlemen (say twelve or fifteen) have personally applied to the Superintendent for tombs, the cost of which will not exceed two hundred and ten dollars, including a handsome stone fence of hammered granite capped with the same, with sufficient drains from each tomb, as per plan herewith presented. Your committee therefore recommend that said Superintendent be authorized and directed to proceed, under the direction of a special committee of the City Council, to erect as many tombs, conformably to the plan herewith reported, as he can find purchasers for, commencing at the north-west corner, and proceeding southerly on Washington street; thence on the southerly boundary and so on, until the whole ground shall be inclosed with a substantial stone fence, not less than six and a half feet in height; but on the express condition that the construction of the tombs shall not be undertaken faster than purchasers shall appear, to take and pay for them, thus obtaining a handsome and ornamental inclosure, without expense to the city. Which is respectfully submitted. By order of the committee,

I. BELLOWS.

Read and accepted, and thereupon ordered, that the former committee be authorized to carry the same into effect. Sent down for concurrence.

Came up concurred.

APPENDIX C.

LIST OF NAMES OF OWNERS OF TOMBS IN SOUTH BURIAL-GROUND

No. of Tomb.

- 1 Joseph Willcutt.
- 2 Edward D. Clark, Benjamin Clark.
- 3 Boston Female Asylum.
- 4 Prince Hawes, Daniel C. Bacon, Thomas Gray.
- 5 Aaron Guild, George M. Smith.
- 6 Franklin Smith.
- 7 Nahum P. Whitney.
- 8 Frederick Lane, Benj. C. Frobisher, Saml. A. Eaton, Jona. Preston.
- 9 Levi Meriam, Levi B. Meriam.
- 10 Payson Perrin.
- 11 Washington Lee, Charles Leighton.

No. of Tomb.

- 12 Samuel Payson.
- 13 Lemuel Shaw.
- 14 John French, John Thompson.
- 15 Solomon Piper.
- 16 Thomas Parsons.
- 17 Enoch Patterson, Benjamin T. Gilbert.
- 18 John Bellows.
- 19 Charles P. Sumner.
- 20 Orpheus Holmes.
- 21 Winslow Lewis.
- 22 Aaron Willard, William Fisk.
- 23 Joseph T. Buckingham, Nathaniel Howland.
- 24 William Hayden.
- 25 Elias B. Thayer, Joseph Thayer, Benjamin True.
- 26 Silas Swett, Samuel Meek.
- 27 John Bray.
- 28 James Loring.
- 29 Thomas C. Smith.
- 30 Bela Stoddard $\frac{1}{2}$, Hezekiah Stoddard $\frac{1}{2}$.
- 31 Thomas Whitmarsh, Jeremiah Kahler.
- 32 Benjamin Howard, Samuel Goodridge.
- 33 Franklin Smith.
- 34 Elias Kidder.
- 35 Emery Alexander, Ebenezer Alexander.
- 36 Willard Sales.
- 37 Franklin Smith.
- 38 John Redman, Caleb I. Pratt.
- 39 Charles H. Stearns, Thomas P. Pulsifer.
- 40 Charles W. Cartwright.
- 41 Francis Fisher.
- 42 Elisha Vose.
- 43 George W. Thayer.
- 44 Nathaniel D. Vose, Samuel D. Vose.
- 45 Caleb I. Pratt.
- 46 Cornelius Briggs, George Sears.
- 47 Benjamin Freeman, Watson Freeman.
- 48 Jonathan Minot $\frac{2}{3}$, Caleb W. Leyland $\frac{1}{3}$.
- 49 Moses Everett, Aaron Everett.
- 50 Franklin Smith.
- 51 William Crease, Richard Sears, Willard Sears.
- 52 Isaiah Stoddard.
- 53 Stephen S. Andrews.
- 54 Nathaniel Dexter, Robert Emerson.
- 55 Francis C. Whiston.
- 56 John V. Ford, Francis Lincoln.
- 57 Job Tower, Mary I. Danforth.
- 58 Lyman White.
- 59 Luther Horr, Josiah Parsons, Micah Cutter.
- 60 Jacob Bacon.
- 61 Parker Fowle, Charles Fowle.
- 62 John Sancry, John Cole.
- 63 Catherine Bailey.

No. of Tomb.

- 64 Calvin Haskell, Oliver Libby.
- 65 Holmes Hinckley.
- 66 Samuel Vaughan.
- 67 Henry W. Gill.
- 68 Samuel Tenney, John H. Tenney, Thomas Tenney.
- 69 John Peak.
- 70 Daniel Rhodes, Oliver Downing.
- 71 Nathaniel Jenkins.
- 72 Elizabeth Loring.
- 73 William B. Callender, Nancy Bittle.
- 74 John M. Salmon.
- 75 William S. Walker, John G. Roberts.
- 76 John L. Plummer.
- 77 John Peak.
- 78 Levi Kelley.
- 79 Caleb I. Pratt.
- 80 Elizabeth Lewis.
- 81 David Jordan, Frederick R. Woodward.
- 82 Asa Brown, Judah Sears.
- 83 John Peak.
- 84 Nathan Sawyer, Edward T. Russell.
- 85 Deposit.
- 86 John R. Teague and Nathan Walker.
- 87
- 88 Sally Malzard.
- 89
- 90 Albert F. Brown, George N. Noyes.
- 91
- 92 Ariel Low and Levi Meriam.
- 93
- 94 Milton Gale, Samuel F. Parker.
- 95 Home of Indigent Females.
- 96 George W. Pruden.
- 97
- 98
- 99 — City.
- 100 Full, — City. •
- 101
- 102 Small-pox.
- 103
- 104 Full, 1840 — closed.
- 105
- 106 Full in 1840. Small-pox — closed.
- 107
- 108 Full and closed 1840.
- 109
- 110 Full.
- 111 Small-pox — nearly full.
- 112 Full.
- 113 Full.
- 114

No. of Tomb.

- 115 Full.
- 116
- 117 Full.
- 118
- 119 Full.
- 120
- 121 Full.
- 122
- 123 Full.
- 124 Full and closed, Nov. 24, 1848.
- 125 Full.
- 126
- 127 Full.
- 128
- 129 Full.
- 130 Full, March, 1850.
- 131 Full.
- 132
- 133 Full.
- 134
- 135 Full.
- 136
- 137 Full.
- 138
- 139 Full.
- 140
- 141 Full.
- 142
- 143 Full.
- 144
- 145 Full.
- 146
- 147 Joseph Lovering.
- 148 Samuel H. Hewes.
- 149 Mrs. Ireland.
- 150 George D. Dutton, Sarah Nichols.
- 151 George A. Curtis.
- 152 John Worster, Asa Worster, and Elbridge G. Worster.
- 153 Joel Wheeler.
- 154 William Goff and Andrew L. Chamberlain.
- 155 William Pope.
- 156 John Green, Jr.
- 157 Stephen Smith.
- 158 Gardner P. Drury.
- 159 Edward T. Troffittar.
- 160 Lucy D. Titcomb.
- 161 Daniel Miller.
- 162 Nathaniel Hawes $\frac{1}{3}$, Lawrence L. Kurr $\frac{1}{3}$, William White $\frac{1}{3}$.

APPENDIX D.

IN BOARD OF ALDERMEN, May 5, 1856.

Ordered, That the Standing Committee on Cemeteries be authorized, if they shall deem it expedient, to remove the bodies of paupers now deposited in the tombs on the rear of the South Burial-Ground to some other place of interment.

Approved by the Mayor, May 6, 1856.

IN BOARD OF ALDERMEN, August 4, 1856.

Ordered, That the Committee on Public Lands be authorized, if they shall deem it expedient, to remove the vacant tombs on the outside of the rear wall of the South Burial-Ground. (A.)

Read and referred to the Committee on Cemeteries.

IN BOARD OF ALDERMEN, August 11, 1856.

The Standing Committee on Cemeteries, to whom was referred an order, dated August 4, 1856, respecting the removal of vacant tombs on the rear of the South Burial-Ground, Report, that the same ought to pass, with the following amendment, — At (A), add “Provided that the Committee on Public Lands shall cause a substantial granite wall to be erected in place of said tombs.”

For the Committee, Wm. H. Calrow, Chairman.

Read, accepted, and the order passed as amended. Sent down for concurrence, August 21.

Came up concurred. Approved by the Mayor, August 23, 1856.

IN BOARD OF ALDERMEN, December 15, 1856.

The Joint Standing Committee on Public Lands, to whom was referred the petition of L. M. Clark and others, that the street on the easterly side of Franklin square may be continued from Newton street to Concord street; also as relates to an order passed the City Council, August 11, authorizing the committee, should they deem it expedient, to remove the vacant tombs on the outside of the rear wall of the South Burial-Ground, provided the committee cause a substantial granite wall to be erected in place of said tombs, would respectfully submit the following Report: That they have caused the vacant tombs to be removed, the material

to be disposed of ; also, that a contract has been made for the erection of a granite wall which, together with the extension of the street leading from Franklin square to Concord street, will be completed by April 1, 1857.

For the Committee, Farnham Plummer, Chairman.

Read and accepted. Sent down for concurrence, Dec. 18. Came up concurred.

IN BOARD OF ALDERMEN, December 7, 1857.

Ordered, That the street leading from Brookline street, east of Franklin square, and through to Concord street, take the name of, and be hereafter known as, James street.

Approved by the Mayor, Dec. 8, 1857.

APPENDIX E.

IN BOARD OF ALDERMEN, February 12, 1866.

The Committee on Cemeteries, to whom was referred the petition of O. M. Moulton, praying that the fee of the land covered by certain tombs in the Burial-Ground situated on Washington street may be granted to him on such terms as may be best for the interests of the city, have considered the subject, and report that it is expedient to grant the prayer of the petitioner. But before any steps can be taken in this matter it is necessary to discontinue the use of the ground as a place of burial. The committee therefore report the following order of notice, as required by Gen. Statutes, Chap. 28, § 8. For the Committee, G. W. MESSINGER, Chairman. Whereas, in the opinion of this Board, it is expedient that the South Burial-Ground, so called, situated on Washington and James streets, should be discontinued as a place of burial, it is hereby *Ordered*: That due notice be given, according to law, that this Board intends to discontinue the use of the South Burial-Ground, so called, as a place of interment for the dead, and that Monday, the fifth day of March next, at 4 o'clock P.M., is assigned as the time for hearing any objections which may be made thereto. Read, accepted, and the order passed.

IN BOARD OF ALDERMEN, March 5, 1866.

Whereas, due notice has been given to the Proprietor of Tombs in the South Burial-Ground, so called, situated on Washington and James streets, that, in the opinion of this Board, it is expedient to discontinue the use of said ground as a place of interment for the dead, and that any of said proprietors might this day appear before

this Board and object thereto; and whereas no objection has been made by any of said proprietors to the proposed discontinuance as aforesaid, it is therefore hereby *Ordered*: That said South Burial-Ground be and the same hereby is discontinued as a place of interment for the dead; and that hereafter no dead body shall be interred or deposited in any of the tombs or within the enclosure of said cemetery. Read twice and passed. Approved by the Mayor, March 6, 1866.

IN BOARD OF ALDERMEN, March 5, 1866.

Ordered: That the Proprietors of Tombs in the South Burial-Ground, so called, be and they are hereby granted leave to remove from said tombs so many of the dead bodies therein interred as they have or may have the right to remove, and to convey said bodies to any places without the limits of the city, which shall be selected for the reinterment thereof, said removal to be made under the direction of the City Registrar, and at such times as he shall approve. Approved by the Mayor, March 6, 1866.

Ordered: That the Committee on Public Lands be authorized to sell, subject to the approval of His Honor the Mayor, all of the interest of the City of Boston, in the fee, or otherwise, of the land heretofore known as the South Burial-Ground, situated on Washington and James streets, and which has been discontinued by the Mayor and Aldermen as a place of interment for the dead. Read twice and passed. Sent down for concurrence, March 8. Came up concurred. Approved by the Mayor, March 9, 1866.

IN BOARD OF ALDERMEN, January 5, 1867.

Ordered: That leave be granted to the Proprietors of Tombs in the South Burial-Ground, numbered 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, and 147 to remove to Mount Hope Cemetery the remains of bodies now occupying said tombs, said removal, however, to be conducted subject to the control and direction of the City Registrar. Approved by the Mayor, January 5, 1867.

APPENDIX F.

BOSTON, June 9, 1883.

EDWARD P. FISK, Esq.: —

DEAR SIR, — I hasten to answer your note of yesterday concerning the interments in the South Burial-Ground. I would state, at the outset, that my knowledge of the matter was principally derived from the late Franklin Smith, who was perfectly familiar

with the cemetery, and who attended to the burial of the city poor for many years.

A large part of the ground, if not the whole, was originally, I believe, a marsh, which from time to time was filled by gravel, allowing the burial of bodies in successive tiers. Burials begun there in 1810, and ceased throughout the city proper about 1835, I believe. In 1827 the city began building tombs, which eventually surrounded the entire enclosure. Afterward a second range of tombs was built, on the eastern front of the cemetery, which was entirely filled with the bodies of those who were buried at the city expense. About 1858 this latter range of tombs was removed, for the purpose of widening James street, and their contents removed to Deer Island, and interred there. About this time Mr. George H. Davis, the owner of the piano establishment on the corner of James and East Newton streets, and of the adjoining house, both bordering on the northern range of tombs, commenced negotiating for the purchase of the entire range of tombs on the northern part of the cemetery. He succeeded in the purchase of all but one, which prevented the opening of a passage-way from James to Washington street, the entire length, which was the object he had in view. By the falling of the walls of Mr. Davis's factory during a fire, which crushed in some of the tombs, the removal of the tombs, with one exception, was made easy. This was followed by the purchase of the ground by Mr. Ballou, who erected the St. James Hotel. Subsequently the tombs on James street, leading from the hotel to the gate, were purchased by Mr. Ballou, and a wing to the hotel erected thereon.

During this period the burial-grounds of the city were in the custody of the City Registrar. While the foundation of the addition to the hotel was in course of preparation, my attention was called to the fact that coffins were exposed in considerable numbers in the trenches, which served to attract the curious. To avoid the excitement which had already begun to manifest itself, officers were stationed there, to prevent the presence of idlers and the curious.

I am not sure that I have written just what you want to know, and I am afraid that I have been more prolix than was advisable; but if I have inadvertently omitted anything within my knowledge that you desire to know, please command my services.

Yours, very respectfully,

N. A. APOLLONIO.

APPENDIX G.

REPORT OF A HEARING BEFORE THE SPECIAL COMMITTEE OF THE COMMON COUNCIL OF THE CITY OF BOSTON, ON THE PETITION OF THE NEW ENGLAND CONSERVATORY OF MUSIC, THAT A PORTION OF THE SOUTH BURIAL-GROUND BE CONVEYED TO THEM, FOR THE PURPOSE OF ERECTING THEREON A HALL FOR MUSICAL PURPOSES, AND FOR THE USES OF THE CONSERVATORY.

CITY HALL, October 25, 1883.

The committee met at 3 o'clock, P.M. Present: Councilmen Fisk (chairman), Whitmore, and Goodman.

STATEMENT OF LUCIUS A. CHASE, SECRETARY, IN BEHALF OF THE NEW ENGLAND CONSERVATORY OF MUSIC.

Mr. Chairman and Gentlemen:—The New England Conservatory of Music. What is it?

It is a corporation under the laws of Massachusetts. Incorporated in 1867, with the right to hold property to the amount of \$100,000. The operations of the Conservatory were commenced in seven rooms in the Music Hall. In three months time these were filled to overflowing; and the school, proving so successful, other rooms were furnished by the Music Hall Association, at an expense of \$25,000; and five years later the adjoining building was purchased and fitted up at an expense of about \$50,000, for the use of the Conservatory, which leased the premises for ten years. Members continued to increase, until, in the school year of 1881-82, there were in attendance at one time 971 students, quite too many to be accommodated in the quarters occupied.

By an act of the Legislature of 1882, the power was granted to hold property to the amount of \$500,000. The capital stock was \$100,000, divided into shares of \$100. A large and controlling interest in the stock was owned by the founder of the institution, Dr. Tourjée.

In June, 1882, the property known as the St. James Hotel, on East Newton street, was purchased by the corporation, and its effects transferred from the Music Hall to the new location; and the school opened there in September of the same year. Success beyond the most ardent expectations of its best friends immediately followed.

In March last, the shares of stock held by other parties, was surrendered to Dr. Tourjée, to be by him cancelled and made void. The whole amount of the Conservatory property was then given by Dr. Tourjée to a board of fifty trustees, and transferred to them by a legal document drawn by Joshua D. Ball, Esq., well known as one of Boston's most astute lawyers, to be holden by them forever as an educational institution, embracing music, literature and art, in their various branches and departments.

The trust was accepted by the persons nominated for trustees, who are gentlemen and ladies of the highest standing in literary, business, and financial circles, as well as in the hearts of the people. This transfer and acceptance form a part of the records of the corporation.

The trustees have absolute control of the property and the management of the institution. They elect annually from their own number a board of officers, consisting of president, vice-president, director, secretary, assistant secretary, treasurer, and auditor, who constitute an executive committee for the management of the details of the business, subject at all times to the control of the trustees, who have full power to direct, remove, and elect successors.

By the conditions of the transfer, no *person* or *company* can receive any emolument, or share in the profits or accumulations of property by the corporation; but all such profits are to be used in extending and building up the best interests and usefulness of the Conservatory. No officer of the corporation is to receive any salary or compensation for services, excepting only the director (at present Dr. Tourjée), whose salary is to be fixed by the executive committee, which also has the power to employ teachers, and such other helpers as may be necessary for the conducting of the business.

The trustees stand pledged to administer the interests of the corporation in accordance with the wishes of the donor, as fully expressed in the records of the corporation. It is not to be denominational or sectarian in any sense or degree; but is open for admission to students of good character, from any and all parts of the world; and to-day embraces among its numbers many phases of religious inclinations and beliefs.

These students come from, literally, all parts of the United States, from Maine to Texas and from Florida to Washington Territory, Oregon, and California; also from all the provinces of Canada.

During the first year of its existence in its present locality, there have been in attendance and paying tuition, 1,989 *different students*.

Harvard University has in attendance, including all its various schools and grades, according to its printed year-book, 1,572 students. Boston University, including all its schools and grades, quoting from its year book, 596. Wellesley College, 485. Vassar College, 314. Cincinnati College of Music, 1880-81, 536. Of conservatories in the Old World: Stuttgart has 250; Leipsic, 350; Paris, 920, which are the largest in Europe. Outnumbering all these the N. E. Conservatory is also by far the largest institution of its

kind in the world, as its records show that there have been in attendance in the last school year, as before stated, 1,989 different students. Its graduates are filling many of the prominent places as professors in various colleges and schools in this country, and others are in foreign lands, some as artists, and others still pursuing their studies. Thus the Conservatory is stretching her hands to the ends of the earth and the *Universal Language — Music* — is to be heard throughout all the world.

One of the *pressing needs* of the institution now is an *ample hall*, where this great number of students may assemble for its daily work, for public exercises, rehearsals, concerts, lectures, religious services, etc. At present they are obliged to use the dining-hall, on many occasions, which can accommodate but a small portion of the whole school, and it is used with *great disadvantage* to both students and the boarding department. On other occasions Music Hall, Tremont Temple, and other halls, are resorted to, involving a large expense of time, labor, and money. Several calls are made every week for the use of a hall for these purposes, and the *demand is constantly becoming more pressing*.

It is in contemplation to erect a hall as large, or larger, than Music Hall, which shall be in its building and all its appointments a credit and pride to the City of Boston, and second to none in the country in its accoustical and other desirable qualities. It is to be so arranged as to accommodate the largest orchestras and choral organizations, as well as lecture courses and other proper entertainments. The South End at present has no such hall, and its growing needs call loudly for accommodations such as the Conservatory proposes to furnish.

The value of real estate in the vicinity has already been enhanced by the location of the Conservatory, as we are informed by different parties engaged in the business; houses are in better demand for rent, and property that was idle has become active and paying.

There is another point of great interest to the citizens of Boston in connection with the proposed hall. It is well known that the Music Hall corporation decided sometime since to dispose of the Great Organ, which has been for many years one of Boston's pets. Parties from three different cities were negotiating for its purchase, when one of the trustees of the Conservatory stepped in, *bought it on his own account*, and holds it for a time, that it may, if a hall can be erected for the purpose, be *retained in Boston*, and become an *attachment* to the *Conservatory*. In that case, in accordance with plans which have been drawn and submitted to builders, the organ would be rebuilt in some of its parts, and enlarged so as to make it the *largest* and one of the very *finest* and *grandest organs in the world*, and even a *greater attraction and honor than it has ever been before*. Surely, Boston ought not to bear the stigma of having its organ taken away, and its City Government can well afford to look favorably upon such an enterprise as is proposed by the Conservatory.

By a careful estimate it has been determined that the students at the Conservatory, whose homes are not in this city or its imme-

diate vicinity, expended for various needs and luxuries in Boston, more than half a million dollars the past year, and there was added to the population of Boston through its instrumentality, more than one thousand persons, or on an average, more than five hundred constantly.

For tuition, board, and rooms, the students paid last year nearly two hundred thousand dollars, — all of which was expended in Boston.

The first term was prosperous; the second, third, and fourth were more prosperous still, and the year closed with the best hopes and calculations of the director and officers, and the board of trustees, more than met. Each and every department of the institution, including the home for board and room, the tuition or school proper, the art department, and the store, shows all expenses paid with a surplus remaining, which have been put into improvements, additions, etc., etc. The interest on the investment has been promptly paid when due, also the insurance on the whole property for five years, as well as all payments which have become due on pianos, many of which were bought at the very lowest prices on instalments, and others which have been paid for in full. Repairs and improvements amounting to several thousands of dollars have been paid; the art department equipment has been purchased and paid for; a very valuable library, mostly of musical works, has been purchased (at a very low price), and paid for; a \$1,500 organ has been purchased and paid for; teachers' salaries and employés' wages have all been promptly paid, and the general expenses met.

The second year starts with more promising prospects than the first, especially in the home patronage, which is exceedingly gratifying, as well as that from literally all the States in the Union, and all the provinces in Canada. Boston has a right to be proud of such an institution, which has given instruction in a single year to 1,989 different students from all parts of the country, far out-reaching any similar institution in the world in this, as well as in its equipment and its general and special facilities for imparting instruction in all departments of music, art, and literature.

For the purpose of erecting such a hall as has been referred to the trustees of the Conservatory have petitioned the City Government through its Board of Aldermen, asking for the conveyance of a parcel of land, being immediately in the rear of the Conservatory buildings and a part of the South Burying-ground. This plot of ground measures 110 feet by 100 feet, and contains 11,000 square feet. The petition was referred by the Aldermen to the Joint Committee on Public Lands, consisting of two members of the Board of Aldermen and three from the Common Council. Public hearings were granted to the petitioners at their request. This very intelligent committee, *all of its members presumed to be thoroughly familiar with such business*, visited the premises, looked the grounds and the institution carefully over, and reported unanimously in favor of conveying the ground asked for to the trustees of the Conservatory for the sum of one dollar. *The Board of Aldermen*, each and all of its members, also visited the prem-

ises, and, after *thorough examination*, passed an order authorizing the Mayor to convey the land asked for to the trustees for the sum of one dollar. This order was sent to the Council for concurrence.

The Council returned the order, asking that a price or valuation be fixed upon the land.

The subject was again considered by the Committee on Public Lands, who did not change their views as to price, and the order was again sent to the Council *as at first*, with the condition that the hall be erected within two years of the time of conveyance. The Council then asked the Board of Aldermen for a joint special committee on the subject; which was not deemed expedient by that Board. The Council then appointed a special committee from their own body, which has not yet made a report, and it is before this committee that we now appear.

I have drawn a rough plan of the ground. The city has an elaborate plan; but the form of the land can be seen by this one.

The CHAIRMAN. — We shall have one here from the City Surveyor's office, showing the ground.

Mr. CHASE. — The part of the cemetery we ask for is the rear of the Conservatory building, 110 feet one way and 100 feet the other way. It is in the rear of the building on two sides, and in the rear of the vacant lot, and part of Mr. Davis' estate on the other side.

On April 24, 1867, the City of Boston sold to Mary A. Ballou a lot of land in the South Burying-ground fronting on James street 110 feet, and running back from that street 110 feet, containing 12,100 square feet. *The price paid was \$1.00 per foot, or \$12,100 for the lot.* It had a front on James street of 110 feet, sufficient for five house-lots with 22 feet front each, and 110 feet deep. On this land there were tombs for the burial of the poor, all of which were owned by the city, so that Ballou got a clear title without any encumbrances.

This sale establishes a precedent for the *sale of land* from the *South Burying-ground*, also a price for the land fronting on a broad street, and for purely business purposes.

If land so situated, with good front, and every inch available for ordinary purposes, and entirely free from all encumbrances, is worth \$1.00 per foot, what is land worth in the rear of back-yards, 90 feet distant in its nearest point from any street, entirely inaccessible excepting through the burying-ground, and encumbered by four deeds of tombs giving the holders inalienable rights *forever*?

In 1866 the City of Boston sold to Geo. H. Davis a tract of land 26 feet in part wide and 15 feet 4 in. wide in part (show plan) and 295-10 long, extending from James street westerly and in the rear of the lots on *West Newton street which were only 64 feet deep*. This plot of ground was also part of the South Burying-ground, upon which were numerous tombs *all owned by the City of Boston*; so that the conveyance made included these, and gave Mr. Davis a *clear title to the land without any encumbrances whatever*. This lot contained 5,743 $\frac{2}{3}$ feet and was sold for \$5,743.67, that is, \$1.00 per foot. This lot had a front on James street of 26 feet, and the whole

tract was needed to give the lots on Newton street sufficient depth for practical purposes.

I have another diagram here showing this lot.

Mr. WHITMORE.—How much of it was covered by tombs?

Mr. CHASE.—I do not know how much, but there was some considerable part of it.

Q. Have you any figures?

A. No, sir. There were some tombs on it.

Q. I did not know but you might have had some special information, having looked it up.

A. Yes, sir, we have looked it up. (Mr. Chase described the outlines of the lot, according to the diagram referred to.)

Mr. WHITMORE.—How much of it was covered by tombs, and how much of it was open ground?

A. I cannot tell you how much was covered by tombs, but there was a considerable part. I will tell you more in a minute. It runs clear back to within ten feet of Washington street.

Q. Were there any tombs in here?

A. There were some there and some on this part. (Referring to the diagram.)

Q. Where is the record of the tombs?

A. I do not know where there is any record of the tombs.

Mr. CHASE.—In the same deed the City of Boston conveyed to Mr. Davis another piece of land, 26 feet wide for part of its extent, and 10 feet 6 in. in the remainder, and extending from the rear of the former lot, just described, to Washington street, with a front there of 26 feet on Washington street. This plot of land contained 2,222 $\frac{3}{4}$ feet, and was encumbered with several tombs owned by private individuals with rights conveyed by deeds, to hold them forever for the purposes of burial, being in precisely the same condition under which the plot of land which is now asked for is found to-day. This lot was conveyed to Mr. Davis without any money consideration. Why? Because of the encumbrances of the tombs. That lot contained several tombs; I do not know how many, but quite a large number. It was conveyed to Mr. Davis by a quitclaim deed, without any price.

Mr. WHITMORE.—A distinction was made between them? This was a quitclaim, and the other was a warranty?

A. Yes, sir.

Q. A distinction was made between the two lots?

A. Yes, sir.

Mr. Chase produced the deed, and continued: I have the deed here conveying both these pieces of land to Mr. Davis, one for the consideration of one dollar a foot and the other without further consideration.

In this case we have the judgment of a former City Government regarding the value of land in the South Burying-ground encumbered with perpetual encumbrances, and it is not strange that men of intelligence in the City Government of 1866 should agree *exactly* with the *fifteen intelligent gentlemen of the present City Government*, who, after *careful examination and reëxamination*, have fixed the value upon the piece of ground asked for by your peti-

tioners at \$1.00 for the lot. In confirmation I will read a letter from Hon. A. H. Rice and others : —

Boston, Oct, 10, 1883.

MY DEAR SIR : — I sincerely hope that the effort making to secure the portion of land adjacent to the Conservatory of Music, necessary for the erection of the proposed hall for musical and educational purposes, will be successful. I really can see no substantial objection to the sale of the land by the city and at a small a nominal price, for the purpose stated ; that being directly in the line of the schools, the Public Library, and all other educational enterprises, and of that aid to institutions in which both the city and State have coöperated with individuals to secure their establishment. So far as the land is concerned, its actual value for any salable purpose is very small ; and, fortunately, there is no tender sentiment to be disturbed by taking it. On the other hand the benefit that will accrue to the public, and especially to people of moderate means, by having a hall erected thereon, which shall be adapted, in capacity and construction, to musical and other educational entertainments, at moderate cost, is of the greatest advantage. The energy and perseverance and thorough good sense with which you have planned and executed everything connected with the Conservatory thus far, ought to inspire the fullest confidence and heartiest coöperation in carrying your work to completion.

Very truly yours,

ALEXANDER H. RICE.

Dr. E. TOURJÉE, *Director, etc., of N.E. Conservatory of Music.*

We, the undersigned, heartily concur in the above. (Signed) Sam'l N. Brown, Ezra Farnsworth, W. H. Kennard, Abram French, J. A. Felt, Sam'l Carr, Jr., E. W. Dennison, C. M. Clapp, Rufus S. Frost, Oliver Ditson, Dana Estes, Geo. A. Miner, Edw'd L. Tead, M. D. Spaulding, Edw'd Tyler, J. B. Moors, D. Webster King, Charles A. Rogers, D. G. Woodvine.

Mr. CHASE. — I have another portion of the same thing which would increase the number of the names signed, but which I will not read. This is a copy of that letter, and it is signed by John Billings, Chas. F. Morse, W. W. Robertson, H. R. Corthell, J. E. V. Hayden, Jas. P. Sullivan, Hyneman Bros., Cutler Bros. & Co., A. H. Harris, C. O. Loomis, M.D., F. D. Gilmore.

The CHAIRMAN. — Are those signatures to petitions which the Conservatory circulated?

A. Yes sir. We received that letter from Mr. Rice. We thought it would be a good thing to have an expression of opinion from prominent men on this subject. We believed they desired us to have this land at a nominal price, and we thought it would be a good thing to have the opinions of those gentlemen on the subject.

Q. But the petition was circulated by the Conservatory?

A. Yes, sir. We received that letter and they —

Q. The signatures were obtained by the Conservatory?

A. Yes, sir.

Mr. WHITMORE — Did they state that they wished the land given for a nominal price?

A. They do not say they wish it, but they see no reason why it should not be sold for a low, nominal price. I have also some other letters here from real estate men : —

Boston, Oct. 2, 1883.

EBEN TOURJÉE, Esq. : —

DEAR SIR, — The land you refer to in the graveyard, in rear of the Conservatory of Music, on East Newton street, has no market value at present,

and could not be sold at any price. If, however, the city should deed it to another party, it would become at once taxable property, from which the city would derive an income.

Yours respectfully,

J. D. K. WILLIS.

Mr. WHITMORE. — Why is he not here to express his opinion?

Mr. CHASE. — I don't know, sir. I will now read another letter: —

BOSTON, OCT. 25, 1883.

Mr. TOURJÉE: —

DEAR SIR, — I consider the lot of land in the cemetery adjoining the New England Conservatory of Music, which is deemed desirable to add to said property, is of no value for any other purpose.

Yours truly,

F. G. BARNES.

The CHAIRMAN. — Have you any of those gentlemen here?

Mr. CHASE. — I do not know, sir, whether they are here or not. We invited them to come, and they had other engagements.

Mr. WHITMORE. — I think we ought not to take evidence from people who are in the city, and who do not come up here to substantiate their opinions. I think that objection ought to be taken.

The CHAIRMAN. — Mr. Chase, are you willing to leave those documents in the possession of the committee?

Mr. CHASE. — Certainly. I do not know of any objection whatever.

Dr. TOURJÉE. — I do not know of any objection.

The CHAIRMAN. — I understand you are willing to leave them with the committee?

Dr. TOURJÉE. — Yes, sir, if we can have them again.

Mr. Chase continued: It has been proposed by the councillor from Ward 12 to extend Rutland street through the burying-ground, thus bringing the interior part of the ground into market. (Explains by plan, and shows that it would not pay.) A glance at the plan will show that this is impracticable, from a financial stand-point even, for the land which would have to be taken for the street is *worth more money than all the land which would be made available by the opening of the street*, saying nothing of the tomb encumbrances, which would have to be purchased at no *inconsiderable amount*, and nothing about the expense of opening and maintaining a street for which there is no public need or demand.

The Street Commissioners viewed the premises and reported *inexpedient*.

On this paper I have a plan of the extension of Rutland street, making it fifty feet wide.

Mr. WHITMORE. — Where is the statement of the Street Commissioners making any suggestion that the street should not be opened? What is your authority for that?

Mr. CHASE. — The authority for that is they made it personally to us.

Mr. WHITMORE. — We have their official report here ; I wanted to know if there is anything omitted ?

Mr. CHASE. — Does the official report concur with that statement ?

Mr. WHITMORE. — No, sir, it does not say anything of the kind. (Reading.) “ They estimate the cost of laying out a street fifty feet wide, in continuation of Rutland street, from Washington street to James street, will be nothing for the land taken, as the city owns the tract covered by the South Burying-ground, from which the whole of the land required for said extension will be taken. There are, however, a number of tombs and burial-vaults in the line of the proposed extension, some fifteen or more, besides graves, and as to the money value of these the Board is not able to form an opinion.” That is all we can see, and that is what they sent to us.

Mr. CHASE. — They made a report to us personally, when they came up there. I supposed it was not essentially different from the report to the Council. The lot on Washington street is valued at \$3.50 to \$4 per foot. Taking the lowest estimate this would be 5,000 feet, at \$3.50 a foot, and it would come to \$17,500. I am speaking now of the extension of Rutland street. Here is a plan of the proposed extension. Rutland street is fifty feet wide. The land on Washington street is valued at different prices, from \$3.50 to \$4.50 a foot. We put it at the lowest price, and for fifty feet wide and one hundred feet deep, that would be 5,000 feet, which would come to \$17,500. Taking a similar lot on James street, estimated at the same price that it was sold for, that would be \$5,000.

The CHAIRMAN. — This was sold twenty years ago ?

A. Yes, sir, but I have looked at the Assessors' records and find no essential difference between the value for which the land was assessed then and now. The entire property is assessed for \$2 a foot. The Conservatory property is assessed for \$1.50 per foot. The burying-ground land is assessed for \$2, but you must remember that it has more front on Washington street than on James street.

Q. This part here is covered by the Conservatory ?

A. Yes, sir.

Q. So that the burying-ground has only that part ?

A. Yes, sir. I looked over the Assessors' books and found no essential difference between the price of land now and in 1867. This lot, on the corner of Washington street, is assessed at \$3.75. This one is assessed at \$3.75, I think. That is assessed at \$4. These over here are assessed at \$3.75 and \$4, and \$4 exactly opposite. The land that would be required for opening Rutland street would be worth \$25,400, assessing this middle portion without any encumbrances at fifty cents a foot ; \$3.50 on Washington street ; \$1 on Rutland street, and fifty cents in the interior — \$25,400 — while the only land brought into the market by the opening of the street would be these two plots, one containing 10,500 feet and the other 12,000 feet, estimated at \$1 a foot, which would come to \$22,560.

Mr. WHITMORE. — How much do you value that at ?

A. At \$1 a foot when the street is opened.

Q. Do you not think it would be worth more ?

A. It is a fair price.

Q. Will you have the kindness to look at this plan. Here is Rutland street, on the other side of Washington street. Do you know the valuation of this land?

A. No, sir.

Q. Do you know it is assessed for over \$2.50 a foot?

A. No, sir, I don't think it is. I think it is assessed for \$1.50 a foot; but I am not positive. The opening of Rutland street would bring those two plots into the market. They contain 22,560 feet, which would be worth \$22,560 at an ordinary price. That takes nothing into account for purchasing the tombs on the land, nothing for building the street, and nothing for maintaining it.

Q. Will you tell me if your figures just given included all the other half of the cemetery which is south of Rutland street extended.

A. Yes, sir. We calculated that this land on James street, and this on Washington street, 100 feet deep, would be worth more on Washington street than on James street.

Q. How much do you estimate those five lots would bring altogether.

A. I did not reckon that up. They are valued at from \$3.50 to \$4.50. This lot would be 100 feet deep; it is a little over 100 feet wide. There is no question but this land on Washington street would be worth more than on Rutland street.

Q. The way to figure that would be to take two lots on Washington street, 100 feet deep, and two on Rutland street of 100 feet deep?

A. Yes, sir.

Q. Now, sir, give me your figures again. Those two squares on Washington street — 5,000?

A. No, sir, I think not, one is 110 by 100.

Q. That is 11,000 feet?

A. The other, if I am not mistaken, is 125 feet on Washington street, and 100 feet deep.

Q. That would be 12,500?

A. Yes, sir.

Q. How much do you call the northerly one worth?

A. I should estimate it at \$3.50 a foot. The last sales in the vicinity were for \$4.50.

Q. At \$4 that would be \$44,000. The lot below there, being further south, would be \$43,750. There is one lot on James street, which would be 12,500?

A. Yes, sir.

Q. You say it is worth \$2?

A. No, sir; I should say it was worth \$1. This lot was sold for \$1 twenty years ago, and there is no difference in the value between then and now.

Q. Let us add this up.

A. The middle lot I estimated at 50 cents a foot.

Q. The two middle ones would be 11,000 feet each?

A. One is 10,560 and the other 11,000.

Q. You value them at a dollar?

A. I value them at a dollar.

Q. And that adds up — if I understand your argument, it is that if the city lays out the street over its own land, and brings it into the market, the land at those figures is worth \$122,250?

A. No, sir, those are not my figures. The opening of Rutland street does not affect the value one cent.

Q. Very well; we will not quibble about it. There will be left to the city land available worth \$122,250?

A. No, sir, I don't think so. I do not think it has any particular bearing upon this subject.

Q. I do not think any figures have any particular bearing upon it; but as you have made the statement that they have no bearing, why did you state a few minutes ago that it would cost so much to open the street, and how little would be brought in?

A. I said the land brought into the market, not already in the market, would be worth \$22,560, and the land in the street is worth now \$25,400. That is, the land in the street is worth more than the land you bring into the market by opening the street. That counts nothing for payments for the tombs, nothing for building the street, and nothing for maintaining the street. You do not want to open a street to make this land available. It is not available to-day, on account of the tombs, but not on account of the location. You do not make it a cent more available by opening the street.

Q. The Assessors send us word that the land on Rutland street varies from \$1.50 to \$2 a foot.

A. Yes, sir. We know it is less valuable on these side streets, on the east side of Washington street, than on the west side.

Mr. CHASE then continued his statement:—

Mr. Apollonio, the City Registrar of Birth and Deaths, informs the petitioners that there has been no burial in the South Burying-ground (not the tombs) for more than fifty years, and that there has been no request for permission to remove a body from those grounds since he has held his present office, or more than thirty years, with one single exception. He says, further, that no right for graves have ever been sold there, *permissions* have been given for burying the poor, the paupers.

Mr. WHITMORE. — I shall make objection to any statements said to have been made by Mr. Apollonio, without he is produced. I shall object to any second hand statements. If the gentleman wants to bring him in as a witness, he can call him down, as I suppose he is in the building.

Mr. CHASE. — We did not suppose we were to bring witnesses here.

The CHAIRMAN. — If you wish Mr. Apollonio called, we will call him.

Mr. CHASE. — I have no objection whatever to his being called. I would be glad to see him here.

Mr. WHITMORE. — I object to his making any statements of what has been said by others.

Mr. CHASE. — We are not before a court, as I understand it. This is a committee meeting. We could have brought counsel, but did not think it best. It is not a court, but a committee looking after facts.

Mr. WHITMORE. — The objection I make is this: When statements are made giving statements of any other person who is in the Hall, and can be produced, we should not take them. There might be a slight mistake in reporting what Mr. Apollonio said.

Mr. CHASE. — I have no objection to your calling Mr. Apollonio.

The CHAIRMAN. — If you want to establish that by calling him, we will call him for you. If you do not wish to call him, we will take it as your statement.

Mr. CHASE. — That is all I ask you to take it for. It is correct.

Where James street now is there was formerly a row of tombs, used also for the interment of the poor. After some of these tombs had been filled, and the last deposit had remained in the tomb for ten years at least, permission was given by the city authorities to remove the remains to some other burial place. This was done in many instances, and finally the tombs themselves were removed. The same has been done in numerous instances, and removals have been made from this and other similar burial grounds, by the authority of the City Government.

The remains of the dead are sacred, and should and would have decent burial, should occasion require, at the petitioners' hands.

So far as we know, no objections have been made to the transfer of this property, excepting by two parties.

Our friend and neighbor, Dr. Stevens, thinks, from the rear windows of his house, looking obliquely, the view would be somewhat obstructed, trees removed, etc.; but the corner of the lot petitioned for, nearest to his, would be at least 25 feet distant from the corner of his lot, and more than double that distance from his house, and the space would still be clear for more than 300 feet in a direct line in the rear of his house, and Franklin square is in front.

The parties owning the house and lot between Dr. Stevens and the Conservatory, and partly in the rear of the lot petitioned for, have carefully viewed the premises, and say that they see no ground for complaint against the petitioners.

The other ground of complaint comes from the honorable councillor from Ward 12, and a member of this committee. Expressed both privately and publicly, his objection is, that he does not believe in *desecrating the burial-places of the dead*, nor in allowing *private individuals to steal burying-grounds and appropriate them to their own private use and profit*. The first objection is sufficiently answered by the proposal made to the Council by the same honorable gentleman, and referred to the Street Commissioners, and, also, later to this special committee, proposing to open Rutland street *through the very heart of the burying-ground*, disturbing tombs and graves innumerable.

In answer to the second objection we have only to say, the land

is asked for for an *educational institution* in the hands of *fifty trustees*, to be held and perpetuated by them and their successors forever.

The petition was made to the Board of Aldermen (not a secret society, I believe), referred to a committee of five intelligent gentlemen. This committee granted the petitioners' request for a public hearing, which was advertised in the city papers. The meeting was held, and adjourned to give further opportunity for objections, if there were any to be made. It has been before the Council for a long time, and now this *public* hearing, which the Council granted, notwithstanding the honorable gentleman's strenuous effort to prevent the *public* from knowing what was petitioned for, and why the petition should be granted.

This idea of stealing is quite different from the ordinary acceptance of the term.

So far as we are advised, all the other members of the City Government, and the people generally, are in favor of the conveyance being made, the only question being *for how much?* This we have told you.

I have stated to you what the Conservatory is — an educational institution *PURELY*, not a private property in any sense, having a larger number of students during the past year than any educational institution in Boston or New England, and probably the whole country.

From all parts of the country they come.

They spend a large amount of money in Boston.

I have stated the necessities for a large hall; the desirable place for it to be located; the situation of the land desired, and something regarding its value; the advantages of such a hall to the institution and the public; the facts respecting the great organ; the precedents for conveying the land and prices at other times; the folly of extending Rutland street; the facts regarding the burial and removal of the dead, — and considered the objections, so far as they are known to your petitioners, all of which is respectfully submitted.

The CHAIRMAN. — May I ask if you have 1,989 pupils in that school to-day?

A. No, sir; we do not claim to have. We say we did have last year (which we can prove by our records), 1,989 different pupils during one school year.

Mr. WHITMORE. — Are you an officer in this Conservatory?

A. Yes, sir.

Q. So you speak officially. Have you any plans prepared for this new hall?

A. We have.

Q. Have you got them here?

A. No, sir.

Q. In that plan can you tell us generally whether there is a provision for the public going out? Is there any street exit?

A. Oh, yes, there would be.

Q. Well, is it on the plan?

A. The plan does not embrace it, so far as I know. I have not

seen any perfected plan, but there would be ample entrances which would be acceptable to the city authorities.

Q. Have you ever submitted your plans to the Inspector of Buildings?

A. No, sir, we haven't got as far as that yet.

Q. Do you know anything about this piece of land, which you propose to take for a dollar, if you can get it? — have you made any investigation of the soil?

A. Yes, sir; it is gravelly soil on top, and about six to seven feet down to clay. We think so, for this reason: The permits for burials require that the coffins shall be laid at least three and a half feet below the ground. In some places coffins have been put in two or three deep, which would necessitate a depth of seven feet.

Q. Have you any idea how many interments there were in the space of land which you want to get?

A. No, sir, I do not think it would be possible to tell.

Q. Have you caused any diggings to be made in the yard, or do you know anything about it?

A. No, sir.

Q. Would it make any difference to your ideas of the propriety of building there if you knew that 800 people were buried there?

A. No, sir, not a bit. I am speaking personally. No, sir, not to me.

Q. I understand that. A corporation is not expected to have any feelings, but I suppose that individuals connected with it may express their opinions?

A. Yes, sir.

Q. Do you know whether the adjoining part of the building — the extension part of the Conservatory building — was dug under for a foundation?

A. I suppose it would be necessary to dig for the foundation. I know so.

The CHAIRMAN. — For your extension?

A. For any building; they would have to dig for the foundation.

Mr. WHITMORE. — But you have not perfected your plans yet, so you cannot say whether it will be necessary to excavate and remove the bodies or a portion of them, or whether you will content yourselves with digging trenches along the sides and along the wall?

A. We haven't decided upon that at all. We only say that if we have to remove any remains there, we would give them decent burial as they have had in similar cases before.

Q. Do you imagine that you, as a musical corporation, have the right to dig up any bodies and give them decent burial?

A. Considering that the city —

Q. I am not speaking of the city. But suppose you purchased this land, and found graves there, do you suppose you have a legal right to dig up the bodies?

A. Yes, sir, if the city gives us a warranty deed of the land.

Q. Do you consider that you would be a suitable body to give them interment? What would be your idea in that case?

A. That would be determined by circumstances.

Q. Do you not consider that the City of Boston, having established that as a public burial-ground, should see that those remains were interred decently?

A. I think they would.

Q. Isn't it a proper question for us to ask whether that condition should not be put in the deed?

A. That is for the City Council to say.

Q. But you are giving your opinion, and I ask you, if you will favor us with your opinion, whether you do not think it is proper, before selling the land, to make sure that the city shall take the precaution to see the remains there should have decent interment?

A. I have not the slightest question but it is.

Q. And is it not proper for the city to insist upon such a condition in the deed?

A. Yes, sir. But here are deeds where the city has not made such a condition.

Q. You cannot bind the corporation, of course, but I am asking your own individual opinion, if the City Council should not make that stipulation in the deed?

A. I think it very likely it is; but not having been in the City Government, I do not know whether it is.

Q. Will you give us your opinion?

A. I told you once before that I think the City Government would direct the purchaser as to the removal of any remains.

Q. Very well; do you think it is proper for us to put in that stipulation?

A. Yes, sir, if it is your intention to give the deed.

Q. Now, I want to ask you another question. You have made a statement about this land being of no value, and you have put into the papers a statement as to the advisability of the city giving it away. You know, of course —

A. I beg pardon.

Q. I will modify it: giving it away for the sum of one dollar.

A. I beg pardon; you have had no such expression from us.

Q. What do you say? The city was petitioned to convey the and?

A. We did not set any price.

Q. Did not that letter state, for a nominal sum?

A. No, sir, for a small, nominal sum. You know that the committee of the City Government put in the price at one dollar. The Board of Aldermen approved that price, and sent it to the Common Council. We have never said anything about a dollar.

Q. What do you consider a nominal sum?

A. It depends upon circumstances. If I was going to buy a cigar, it might be one cent; if I was buying a church, it might be ten dollars.

Q. What do you consider was the meaning of the request that it be conveyed for a small or nominal sum?

A. I don't know.

Q. What do you suppose was in your own mind when you signed it?

A. I didn't have any supposition. I didn't have any occasion to have any supposition.

Q. When you sent out that letter, didn't you have any idea about it?

A. No, sir, I didn't have any idea of the sum.

Q. When I say one dollar I say what is commonly named as a nominal sum. We will say nominal sum whether it is ten or fifteen dollars. Will you give me any other example where the City of Boston has conveyed away property, which we will assume is worth in the market a dollar a foot, if it could be sold, and adjoining land sold for one dollar a foot; will you tell me of any other land which the city has given away?

A. The land sold to Mr. Davis. Here is the deed.

Q. That was not a similar case. It was not pretended to be a gift to a charitable institution. It was a sale to Mr. Davis outright.

A. Yes, sir, it was a conveyance for nothing.

Q. Now, will you give me any instance where the City of Boston has sold for a nominal sum to any charitable association, or to any scientific or educational institution, as you claim to be, for a nominal sum?

A. I haven't looked up that.

Q. I will tell you a little different case. The city has twice voted money for a hospital by conveying land at a nominal price; but I did not know but you might know of some case where land has been conveyed to a scientific society.

A. There are a number of cases that are similar in some respects, but not exactly.

The CHAIRMAN. — The fee remained in the city, I believe, and the land is to be used for no other purpose.

Mr. WHITMORE. — I do not know that there is anything else. This gentleman says that although they have made no plans, and none have been laid before the Inspector of Buildings, undoubtedly, as everybody knows, it will be necessary to dig for the foundations — at least it will be presumably necessary to dig for a cellar.

Mr. CHASE. — No, sir, we do not propose to put a cellar under the building.

Q. Of course you cannot put it on the surface of the ground. You have no idea but that the Inspector of Buildings will require proper foundations?

A. Yes, sir.

Q. I understand you to say also that you expect it will be necessary to make suitable excavations there, and in your view it makes no difference if there have been eight hundred persons buried there, in regard to the propriety of selling. Have I quoted you correctly?

A. Yes, sir, I sanction it. If we have to dig for a foundation, and find any remains there, we will have to give them decent burial.

The CHAIRMAN. — Do you expect the city to give you a warranty deed of this land?

A. That is better than anything else.

Q. When you petitioned, was it your idea that the city should give a warranty deed?

A. Our idea was that they should convey the land. We haven't

exactly consulted counsel as to how it should be conveyed ; but we want to have the land conveyed and erect a valuable building upon it, and not be subject to have it taken away.

Q. Whether or not the Conservatory would be willing to submit to the committee some statement of its financial condition during the past year more than has been given?

A. I have given you something in regard to that.

Q. There were no figures given, but merely a statement. No figures showing receipts and expenses were exhibited.

A. I copied the figures from the figures of our departments, after I came here, very hurriedly. I have these different amounts, \$96,746, \$6,207, \$4,258, \$56,286, \$2,471, and \$22,527. I could give you what those were all for.

Q. Could you give us some statement regarding the amount of your expenses and receipts and your liabilities, so we could get at it?

A. We could, if it were necessary.

Q. How soon do you expect to erect this building?

A. Just as soon as we get the land we will go on with the plans. It is required of one of our trustees to remove the Music Hall organ by July next. In order to have the building ready to receive the organ in any kind of shape by that time, it is necessary for the work to begin as soon as possible.

Q. Are you in a position to begin building at once?

A. We can put ourselves in a position to build. The first thing is to know whether we can get anything to build upon.

Q. Would the Conservatory be willing to take this land in the way that the Homœopathic Hospital has taken its land, with the fee remaining in the city?

A. No, sir.

Q. Why not?

A. Because the land is of small value compared to the building which will be put upon it, while in the case of the Institute of Technology the land is exceedingly valuable. The Institute of Technology land is worth several hundred thousand dollars, while this land in the rear of the Conservatory is worth very little ; and we propose to put a large and valuable building upon it, and do not want to subject it to disturbance.

Q. Is that the only reason and objection to taking the land and letting the fee remain in the city?

A. That is *the* objection, and it is a considerable objection.

Q. Are you in a position financially, and have you the money raised, to build this hall.

A. Not all of it.

Q. Enough to warrant you to go ahead?

A. I cannot tell exactly about that. The trustees would tell you about that. I should not be warranted in speaking for the trustees now.

The CHAIRMAN. — Are any of the trustees here now?

Dr. TOURJÉE. — Ex-Gov. Rice will say a word or two.

STATEMENT OF HON. ALEXANDER H. RICE.

*Mr. Chairman and Gentlemen of the Committee:—*I was invited to come here this evening, I hardly knew for what specific purpose. I only knew the general purpose was to give my presence and sanction to the enterprise which is now presented to you for consideration. I do not know that I have a great deal to add to what I have said in the letter which has been read. I want to say, however, and I say it in all heartiness and sincerity, that I am greatly pleased with the care and discrimination exercised by this committee in the disposal of this piece of property. It seems to indicate a very proper and laudable supervision and care for the interests of the public treasury.

If this were merely a question of money, it would undoubtedly be the prime object of your committee to see how much money you could honestly get into the treasury as an equivalent for this piece of land. But gentlemen who are able to exercise such discrimination as you have given to this subject, with reference to the treasury, I feel quite sure are not only competent, but fully disposed to take that broader view which looks to interests common to the city and to the people of the city, which can sometimes be purchased by money, and which are sometimes of greater value than can be purchased by money. There are interests of the City of Boston widely different from the property interests, namely the great social, moral, and educational interests or elements, which enter into society, purify it, amplify it and ennoble it, and make the community in which we live more desirable to us, more advantageous to us, to our children, and to all that shall come after us; and which enhance the influence of the city among similar corporations and among people throughout the country. It seems to me that this question preëminently involves just such interests. To be sure, it is not proposed that the city shall build a school-house on this property, or that it shall build a hospital, or that it shall build any strictly municipal institution; but it is proposed that certain citizens combining together shall accomplish, partly at their own cost, and partly by the coöperation of the city, just that work in the direction of education which the city ought to do, if its means would allow. We have not yet arrived at that stage where we maintain purely at the public cost any institutions higher than those embraced in the several grades of our public schools. We do not in this city or State support any public university. We do support the English High School and the Public Latin School entirely at the city's expense; and that comes very near to supporting a university, because I suppose that the Public Latin School, as conducted to-day, is perhaps more of a classical and educational institution than some universities that can be named. I mean by that that it is of a higher rank and has greater efficiency than Harvard College had a hundred years ago. The principle in many minds is, that the public expenditures should stop at a very moderate grade of schools, as you very well know, gentlemen. Yet, the city has exceeded that in the case of the two schools to which I have referred, and the question has never yet been clearly defined

as to the precise point at which the public interest and duty cease in respect to the support of educational institutions, — that is, the precise grade at which the public shall stop in the expenditure.

But wherever the public expenditure stops, there are various institutions that must exist; and if the public treasury cannot be called upon to support them, individual liberality must come in and supply the deficiency. But, looking at the same principle which leads the public, for the general welfare, to provide schools of various grades, it seems to me proper to extend it so far as to coöperate with private liberality in securing other institutions of a higher class and more varied character, the use of which enures to the public benefit.

This institution which comes to you to-day, Mr. Chairman, the New England Conservatory of Music, as has already been said by the gentlemen who preceded me, is the largest, I believe, of the kind in the world. It has attracted almost world-wide attention. Certainly it has attracted the attention of students all over this country. If I am rightly informed, there are represented in that Conservatory, to-day, every city in the Union and almost every territory in the Union. The students come here because of the great eminence which this institution has attained during even the short period of its existence. That fact I mention as a general certificate of the high character and extended renown which the Conservatory thus early has obtained.

Now, sir, the Conservatory does not come and ask that money be appropriated out of the city treasury for its support. It does not ask you to give to it a piece of property that has, to-day, a large market value, — a property which you could sell and convert into cash, if it were desirable for you to do so. It simply asks you to convey to it for uses, which are entirely in the line of the public education and entertainment and benefit, a piece of property that has at best only a small value, — a piece of property which, according to the evidence which has been shown to you, the City Government has in times past declared to be only of nominal value. It is not a piece of property located upon a highway or public street, or which is approachable by any highway or street. It is not a piece of property that could ever be made eligible for business purposes to any other parties to so great a degree as to this institution. Because I wish to call your attention to the fact that the property which the Conservatory asks to be conveyed to it is within a square that would be formed by the extension of wings touching the extremities of the two wings already built. The front of the Conservatory is on Franklin square, and the side of the building is on James street. The land asked for is in the angle of those two wings.

Mr. STEVENS. — It extends farther westerly than the building does.

Gov. RICE. — It may extend a little farther. I am speaking of the general direction.

I do not know of any use to which this land could be appropriated, where it would be likely to conduce so much to the public

welfare, as it would by being conveyed to this Conservatory of Music for such improvement as they propose to make of it.

When the Back-Bay lands were laid out, the State of Massachusetts made a large appropriation of land down there for educational purposes; and without that coöperation I presume the Institute of Technology, which is now, I think I hazard nothing in saying, second to no school of applied science in this country, — a school which, with the enlargement already made, is scarcely able to take care of the students flocking to it, and which, within five years, will double its number of students, provided the accommodation shall be in the meantime made large enough to receive them.

A great musical conservatory almost necessarily requires a large music hall. In Boston we need, today, a music hall in addition to the one we have. There was considerable public interest manifested when the rumor lately went abroad that the great organ in the present Music Hall was to be sold and carried away. There was nothing like indignation on the part of our citizens at such a suggestion as that, but there was a great feeling of regret on the subject, and a great deal of determination that the removal of the organ, which had given so much celebrity to the city, should be prevented if it were possible to do so. Last week I was in the city of Cincinnati, which has done perhaps more in the direction of the cultivation of the arts and in the multiplication of educational institutions than any other city of equal age in the country. It has followed to a considerable extent the precedent that has been set by Boston. They have in Cincinnati the most magnificent music hall, I suppose, on this continent. That city did not make an appropriation of money, as Boston will not make an appropriation here. But it had individuals, notably one who gave a very large sum of money, and others coöperated with him and paid for the building, and they have the finest music hall in this country as the result. They have an organ also in which they take a great deal of pride, and, really, it is a magnificent instrument. When I inquired where they got it, I was told it was built in Boston. So we contributed something to the Music Hall in Cincinnati.

It seems to me clearly for the interest of this city, and clearly in the line of the idea of multiplying or extending our educational institutions, that it should give so far as it feels justified in giving, such aid and coöperation to this enterprise as the law will allow. As to the specific terms and conditions upon which the conveyance should be made, of course the public interest should be properly protected. What I have to say is upon the general principle.

Some years ago it was my fortune to have something to do with the affairs of the city here at the City Hall. During my mayoralty I felt it to be for the public interests to dispose of public lands whenever and wherever we could get a greater equivalent for the land than its supposed market value. When the Messrs. Chickering proposed to build their great factory — that particular case comes to my mind at this moment — up on Tremont street, I remember the question arose as to the value of the land. Gentlemen connected with the City Council had various estimates among

themselves as to its value, and the Superintendent of Public Lands, I remember, came to me on the subject, and I felt that it would be for the interest of the city to sell the land at a very low price, provided it would secure the erection of that factory thereon. I am at present one of the trustees of the Huntington avenue lands, and I have no hesitation in saying that as trustee, I would make a very wide discrimination in respect to the price at which I would recommend the sale of lots of land there according to the purpose for which it was to be improved. If somebody wished to go down there and build an institution of this kind, with a music hall attached, I am quite certain my associate trustees would join with me in giving the most liberal terms, certainly a price very much lower than we should think of selling it for any ordinary purpose.

I speak, therefore, to the general principle upon this subject. I believe it is entirely in accordance with the public interests and with public spirit, and with public prudence, in reference to educational institutions of various characters. I cannot see that the land in question has any very great market value, and I do think there will be a great advantage to the people of the city from this disposition of it. I do not know, sir, that I have anything further to say.

The CHAIRMAN. — You were speaking about the School of Technology.

A. Yes, sir.

Q. Did they receive their grant of land outright from the State?

A. No, they did not. They received the use of the land as long as it was held for educational purposes. Their grant was a very large one, and of a very valuable property. It included — I speak not according to exact figures, but in general — about two-thirds of that square in front of the Hotel Brunswick, and a considerable portion of the easterly end of the triangular piece adjacent to Trinity Church, which was disposed of last year. In that grant we have an approximation to a case of this kind. That land was granted by the State in the same general manner that the square in front of the Hotel Brunswick was granted. The great improvements made in the neighborhood seemed to make it contrary to the public interests that the Institute of Technology should build on that particular triangle such a building as only they wished to build. The Institute wanted, in addition to the large building which is now in process of erection in front of the Hotel Brunswick, a building for its chemical laboratory and mechanical shops. Of course such a purpose as that would require no ornate architecture. The building of so many fine houses, and the prospective erection of the Public Library, fronting on the triangle, had given a character to that neighborhood which would be greatly marred by the presence of any common building, so that clearly it was for the interest of the city that a building with some architectural pretensions should be erected there, or none at all. The Institute of Technology had no other right except to build on that land unless it got the consent of

the State. The State very readily passed an act authorizing the Institute of Technology to make a bargain or exchange with the City of Boston for other land, or for a money consideration, that might be practicable in that case. The city joined the Institute in the exercise of the permission given by the State, and the Institute invested the money received from the City in some land beyond the Huntington-avenue bridge, and near the Providence Railroad.

Q. Do you understand that the land which the Institute of Technology has bought for its chemical laboratory and workshop is affected at all by the lien which the State has upon it?

A. No, sir, there is no lien upon the land they have bought of the Huntington avenue trustees.

Q. The land that their building stands on, the State holds the fee of?

A. Yes, sir, the State holds the fee of the land fronting The Hotel Brunswick.

Q. You are one of the trustees of the Conservatory.

A. Yes, sir, I am.

Q. Do you see any objections to the same conditions being applied to this land as were applied to the land of the Institute of Technology?

A. The gentlemen who have the pecuniary management of this matter, as I have not, I understand do see weighty objections to it, in that it would encumber their property by having their building erected upon land the fee of which is not their own. For example, if they desired to raise money upon any building they erect there, as might be the case in so large an undertaking, it would be very difficult for them to negotiate a mortgage upon a building standing upon encumbered land. Then again, the reason why that condition should not obtain here as it did in the case of the Institute of Technology, is one which I think Mr. Chase stated, that, in the one case, the land is very valuable, and in this case the land is of very little value. In the settlement of the Back-Bay difficulties, which was done during the time of my mayoralty, it had been supposed always, up to that time, that the City of Boston had a great property right in the Back Bay. But when the subject was investigated with a view really to accomplishing something, it was found that the city had no property right whatever. The territory had been in litigation and under consideration for a long series of years, as to what should be done there; and it was a question of rights for a long while; finally, we turned the matter all about to see what use we could make of it, supposing the legal difficulties and the questions of rights were all settled, because if we could not make some good improvement of it, it would hardly seem worth while to quarrel about it; and if we could make some valuable improvement upon it, that would be a consideration to draw the various parties in interest together. The investigation showed that the city, many years before, had parted with its fee in those flats, and the only right it had was the right to drain. Yet that right was so important a factor in the final settlement, as to result in the extension of the boundaries of Boston out to Brookline, whereas, at the time

I speak of, 1856, I think the line of the city of Roxbury came up to within about six hundred feet of the line of the Public Garden. The sewers and drains were put in by the various parties in interest under the direction of the city, and the great advantage which the city got in the settlement was in the extinguishment of flats, which were a public nuisance, and in getting perpetually a revenue from the property built upon, into the city treasury.

Q. I should like to ask if the property of the Institute of Technology is taxable by the city?

A. No, sir; I suppose not. No educational institution, church, or graveyard is taxable.

The CHAIRMAN. — The property of the Conservatory of Music is exempt from taxation?

Dr. TOURJÉE. — It is exempt, just the same as the others.

The CHAIRMAN. — You were speaking of the Music Hall in Cincinnati. Is that a stock corporation?

Gov. RICE. — I think it is held by a corporation; yes, sir. The principal donor was Mr. Springer, an eminent merchant of that city.

Q. But is it a stock corporation, the same as our Music Hall is?

A. I have that impression. I think it is held by directors, and, therefore, it must be a corporation.

Mr. WHITMORE. — I understood, at the beginning of the hearing, that the letter written came from you, — the first letter read, — recommending the disposal of this property for a small or nominal sum, to the Conservatory of Music?

Gov. RICE. — Yes, sir.

Q. I will not ask you what you meant by a nominal sum, because I suppose you meant a nominal sum when you wrote it?

A. Yes, sir.

Q. I want to ask if you read the opinion of Mr. Healy, in 1881, in the case of the proposed grant of land to the Homœopathic Hospital?

A. No, sir; I do not know that I have ever seen it.

Q. Now, as I know you are familiar with city business, and as you know Mr. Healy was authority in such matters, I should like to read this opinion. The Homœopathic Hospital wanted to get some land from the city, and an order was put in to grant them a lot of 16,000 feet on East Concord street for the sum of \$1. Alderman Viles, who was a very conservative alderman, wrote to Mr. Healey, and the answer is printed here. (Reading): —

CITY SOLICITOR'S OFFICE,
BOSTON, March 4, 1881.

ALDERMAN VILES: —

DEAR SIR, — At your request I asked Mr. Healy whether the City Government had a right to make conveyance of public lands without consideration therefor. In his opinion the City Government has not that right. I also asked his opinion as to the right to make such conveyance for a nominal consideration, and he answered that such a conveyance would comply with the letter of the law, but would clearly be in violation of its spirit.

Yours truly,

E. P. NETTLETON.

Now, sir, there has been a good deal said, one thing and another, about the City Government, and I know you are familiar with all the forms, and the way in which city councils look at such matters ; and with that opinion on record within two years, do you not think the City Council, as a whole, are justified in declining to convey, for a nominal consideration, this land to the Conservatory?

A. I will answer that question frankly, just as I feel about it. I think it would depend somewhat upon the nature of the property and the use to which it would be applied. I think that if Mr. Healy were here, he would make that discrimination himself. If it were a question of conveying land upon a street, eligible and valuable for building purposes, as was the case with that of the Homœopathic Hospital, I should give to his opinion great respect, and say it was entitled to great force. I should suppose it would apply with much greater force there than I should give it in this case, or than I think he would have given it, if asked the question about conveying a piece of a graveyard, within the backyard of an institution already established, and which the city itself has declared was of merely nominal value.

Q. Well, Governor, I will ask you, following that line, supposing this was not a graveyard, — for when you begin to sell it we must disabuse ourselves, for the time being, of the idea that it is a graveyard ; — we are proposing to give it away as public land ; we are not selling corpses or remains. You are familiar with the land as it lies. Do you not think that anybody, that the city, in undertaking to sell as large a block of land as that in that place, that the city would run a street across it, if it were open land? With the size of the land, of which you have a plan here, — don't you think the Committee on Public Lands would reserve, the site of a street at least, if they proposed to sell the whole of the property, instead of selling it in one block? Of course, it is individual opinion ; but merely looking at the fact that there is Rutland street, and to the other cross-streets, parallel with it, the fact that the lots are so large, and, instead of being back to back, there will have to be another cross-street between them, — would not the city, in laying them out, if it were vacant land, say that they would lay out a street across there, before they lay it out?

A. Well, is it a sufficient answer to your question to say that that isn't this case?

Q. No, sir, I think not. I asked the question on account of your familiarity with the public lands, the manner of disposing of them.

A. Here is a graveyard that has lain idle and never brought any remuneration, that was called the Strangers' Graveyard, that nobody has pretended is in use, that has been built upon on the side fronting on Franklin square, this portion having been sold at a very low price ; and the land immediately behind these buildings — the land in question — has been declared by past City Councils to be of merely nominal value. I think that view has governed the action of the City Council. I do not wish to evade giving a direct answer to your question, I beg you to understand, but I submit, with all deference to your intelligence and good judgment, that the case you suppose is not this case, as it seems to me.

Q. Well, I must insist upon that one point. If you do not wish to give an opinion I do not wish to press it.

A. I say that in my opinion it is perfectly justifiable and expedient for the city to convey this piece of useless property, for a nominal price, to an institution which shall improve it for purposes which inure to its own and to the public benefit. Now, we have a Public Library here; the city gave the land and the building; the city and the public coöperated in getting the books.

Q. The city owns it?

A. Yes, sir, the city owns it.

Q. And owns all the contents?

A. Yes, but partly by gift. Now, we want the city to act in this case in the same spirit in which individuals acted in the case of the Public Library, namely, to coöperate with them in securing another institution here for the same general purpose — the public education and advancement.

Q. Do you think this a more meritorious institution than the Public Library?

A. No, sir, not so much so; certainly not; and not so clearly in the line of the public benefit, but still in that direction.

Q. Then the difference you would make in regard to Mr. Healy's opinion, he having stated very clearly that it was in compliance with the letter of the law, but in violation of its spirit, for the city to give the land on Concord street, that this is an entirely different case, because this is a graveyard? I have asked you the question if that was open land.

A. Yes, sir. I would cover all your points by saying that I believe if Mr. Healy were a member of this committee, and had a vote upon this question, he would go as far as I would go in conveying this land to the Conservatory of Music for this purpose.

Q. I do not know that he would not do so, but, unfortunately, he being dead, we must go by his written opinions. Now, I would like to ask you another question: You have heard what Mr. Chase said, that if the Conservatory of Music had the use of this land, they would feel that it is proper for them to remove those bodies?

A. I should say in regard to that, that it is proper for the city to look after all those conditions, and the Conservatory of Music ought to assume all obligations of that kind in the fullest spirit and in good faith.

Q. Let me go one step farther, because you know the rights and prerogatives of the City Council, and how they ought to be exercised. Do you not think it would be much more proper for them to make the removals themselves before they offer to sell the land, instead of trusting it to individuals or corporations to do that duty? I think you will agree with me that a public graveyard, established by the city, and even if used for the burial of paupers and strangers, becomes a trust which the City Government must look after very carefully?

A. Yes, sir.

Q. And if it becomes desirable to dispose of such a piece of land at any time, is it not the duty of the city to attend to it before it undertakes to push that duty upon anybody else? You

know perfectly well that the city has the facilities to conduct all kinds of interments. The city has to bury a very great number of poor now. I want to put on record that, from my investigation of the records, a large number of those graves are not the graves of paupers. Is it not rather the duty of the city, if these bodies are to be removed, to do it themselves, through their own legalized and proper agents, rather than putting it in as a condition in selling the land to anybody else?

A. Well, I should say that the care of a graveyard was in the nature of a sacred trust, and that the city should either remove the remains or should secure that the parties acquiring the land should do it in a manner as delicate and as safe as the city would do it itself. That it seems to me is clearly within the rule of propriety, and the city, in its own way, should make such provision as may be necessary.

Q. Do you not think it is a trust which the city, without some particular reason, ought not to devolve upon anybody else?

A. Well, I suppose it would have to devolve it upon its own employés. The City Council would not go and do it; His Honor the Mayor would not go and do it. The city would have to devolve it upon some one else. I think it very proper for the city to satisfy itself that it would be as well and faithfully done by those who undertake it as if done by itself, or those whom it should select to do it.

Q. Exactly. Is not that a thing we ought to provide for? The city now takes care of these graveyards.

A. Yes, sir; I think it very proper, if there be any point in that, for the city to guard it. Now, I wish it to be distinctly understood that I am not here to advocate any speculative project in this thing. I think the city must be reasonably satisfied that this is a veritable corporation, and that it means business (to use a common expression), and that the improvement to be made of this land is such as is here represented; and it is upon that understanding — I assume all that in the first place — that I advocate a conveyance of this land by the city to the New England Conservatory of Music. But being satisfied with that, then I certainly do believe it is for the interest of the city to make this conveyance at a nominal price.

Q. Well, if I understand you then, you are of opinion that before the city undertakes to dispose of this land to any persons for any purpose, it is the duty of the city to remove these remains, or to be satisfied in the fullest manner that the purchasers would do as much as the city would?

A. Yes, sir, that would seem to be self-evident.

Q. I asked the question because I am perfectly ready to state that is the only point I have contended for in this matter. I never saw any of the opponents of the measure, and I do not know any of them, except Mr. Stevens, whom I have met recently for the first time. But I have felt that the city has a great responsibility which it should not shuffle off.

A. I certainly respect the delicacy of the sentiment which leads you to make that suggestion, and it entirely accords with my opin-

ion. If I were representing the Conservatory as a party to this proposed agreement, I should certainly have no hesitation in assuming in the fullest degree an obligation of that kind, and I presume the Conservatory would not.

The CHAIRMAN. — Are you familiar at all with the financial condition of the Conservatory?

A. I think Dr. Tourjée, who is here, could state that better than I can. If I were to state it I would speak from hearsay. He can probably state it upon facts. Can you not? [To Dr. Tourjée.]

Dr. TOURJÉE. — Mr. Chase can.

A. I could only state what I have heard, and I prefer not to state anything by hearsay. But I understand the institution is in a financial condition so strong as to justify the conveyance of this property to it. That is a very proper suggestion for you to make and to have information upon.

The CHAIRMAN. — That question is one which I raised, and I feel that the committee should know it. I understand that the Conservatory is very heavily mortgaged; that they carry a very large mortgage on their property at present; that they have a very heavy funded debt in that particular, and, of course, that requires money to meet the interest, as well as to meet the payments on the principal when they become due. Then, in addition to that, they propose to build an extensive music hall, which will require additional money, and in that music hall they propose to have the large organ that now stands in Music Hall. Of course that all requires money.

A. So far as the organ is concerned, I believe the instrument is a gift, and not a purchase. So I understand.

Q. The other projects certainly require large outlays of money.

A. I think it would perhaps be proper for Mr. Chase or Dr. Tourjée to state what the income of the Conservatory is. I suppose that, in the beginning, its needs would be larger than in the future, and that they would grow smaller and smaller. If its income is sufficient to clear its expenses and provide something towards paying off the mortgage, the principal anxiety would be covered by that fact.

Q. Have you seen any plan of the hall proposed to be built there?

A. No, I have not seen any plans, and the only object I have in coming here is to speak in a general way. All other things being equal, and all things being made satisfactory, upon the general principle already stated I would favor conveying this land to the Conservatory. I favor it as a citizen and as an individual, and I would favor it as a member of the City Council. I should do so with the fullest confidence that people of all conditions would concur in that action; that it would be a public benefit, and that in no way would the same amount of advantage accrue to the people of the city from the use of that land as would accrue in that way. Now, I am an economist both in the affairs of the city and State. But still I think there is a great deal of cheap talk in the way of rigid economy and cutting down expenditures, without showing

where extravagance exists, or without taking into consideration whether you get something more valuable than money by the expenditure that you make. I think the cry of economy, unlimited and undefined, encourages people to look to greed for wealth, as if the almighty dollar were the greatest thing in the social problem. It is not so. Money is the worst thing you could have if you could not dispose of it and get something for it more valuable. But this is not a question of the appropriation of money. I think it extremely doubtful whether any money would ever come, or for a great many years, if ever, into the public treasury from the disposal of this land for any other purpose.

Q. I myself am not inclined to bring this down to a monetary point only.

A. Oh, I think you are not.

Q. The questions, in my mind, are very much graver than that.

A. Yes, sir.

Q. Can you tell me in regard to the land which the State conveyed for the Public Library? Was that an outright gift, or does the fee remain in the State, as in the case of land to the Institute of Technology?

A. I am unable to say. All those lands upon the Back Bay are of very great value, and are available for a great variety of purposes, of course. I trust that the committee will keep that distinction in mind, that the land now in question is a backyard of the St. James Hotel.

Dr. TOURJÉE. — Perhaps I can answer your question as to the financial condition of the Conservatory. I think it would be proper to put in the answer here.

The CHAIRMAN. — That answer can come in later. I have one or two more questions to put Gov. Rice.

Q. I am going to ask you, assuming that the City Council should see fit to deny this petition, is it going to render impossible the building of a Music Hall for the Conservatory?

A. I so understand it.

Q. In that neighborhood? I do not mean on that particular piece of land, but in that neighborhood?

A. Yes, sir, I so understand it. I do not know of any project for building a music hall in that neighborhood excepting in connection with this enterprise.

Q. And if the city should deny this petition, the project of building a music hall by the Conservatory would be abandoned?

A. So far as this project is concerned, it would be abandoned.

Q. Of course, I understand so far as this particular hall is concerned. But do I understand you to say that the project would be entirely abandoned, so that they would not look elsewhere for an estate upon which to build a hall?

A. I do not know of any suitable place for them to build a music hall upon except this one. It might be that years hence other parties would talk of building one somewhere else, but there is no other project that I am aware of connected with the Conservatory.

STATEMENT OF MR. CHASE. — *Resumed.*

The CHAIRMAN. — If Mr. Chase has any figures to offer I shall be glad to hear them.

Mr. CHASE. — I have not the figures at hand. I read them in the statement I made. I can only say that we have met all our expenses and paid our bills, and each of the five departments has shown a profit; that our tuition department, our board and rooms department, and our music department, and our pianos have each and all shown a profit, so that the best expectations, and more than the expectations of the trustees and the executive committee, have been met. We have paid the interest on the mortgages when they became due. We have reduced to some extent the mortgage itself, and our prospect now is better than it was a year ago. We have also promises of donations which we expect to get to a large extent in building this hall. The Doctor has had various enterprises in hand for the last seventeen years in Boston, and has always carried them on to success. He is now carrying this on in the same way. He expects to get money to build this hall. He expects to get money to carry on the building of this Conservatory. At present the institution is in a successful condition, and the prospects are better than ever before.

Q. Is there any idea of putting a mortgage upon that music hall, or on the piece of land that you wish to have conveyed to you?

A. I have no doubt there might be a mortgage put upon the music hall. That would be a regular transaction in the ordinary way of doing business. It might be necessary, and might not be. But it is very essential that they should be in a condition so that the financial transaction can be effected.

Q. Has that question been raised or talked about?

A. Oh, yes, indeed.

Mr. GOODMAN. — Has it gone so far as to talk about the probable value of the building to be erected?

A. That question has not been settled. There has been no attempt to raise money, because we do not know whether we shall have a place to put the hall. But the moment we get this land we shall take steps to erect this hall.

Q. The plans have not been adopted?

A. No, sir. Plans have been drawn, and are in the hands of an architect. Of course they are subject to modification, and have not been adopted as final. Plans have also been submitted for the reconstruction, to some extent, of the organ, and enlarging it.

Q. You say the original mortgage has been reduced by payments?

A. Yes, sir.

Q. Any considerable sum?

A. I cannot tell you how much. I haven't any figures here.

The CHAIRMAN. — You are not the treasurer of the Conservatory?

A. No, sir.

Q. Who is the treasurer?

A. Hon. William P. Ellison, of Newton.

Mr. WHITMORE. — Have you anything particular to put in on this case, as we have to hear the other side? We may want to make our arrangements to continue the hearing another evening.

Mr. CHASE. — I would like to put in a statement by Mr. Tobey.

STATEMENT OF HON. E. S. TOBEY.

Mr. CHAIRMAN : — I am here by invitation, as one of the trustees of this institution. It may seem almost superfluous for me to say anything in addition to what has been said by Gov. Rice, who preceded me. He has given such a very full and complete presentation of the case, especially by your examination, that little more needs to be said, any more than what can be said in confirmation of what he has said. I venture to state on very general principles why it seems to me that the City Council can very properly grant what the petitioners ask, namely, the conveyance of that land for a nominal sum. It is entirely in the line, I submit, of the past policy of the city and the State, and of the United States. The history of the city is perfectly familiar to all of you in reference to matters of education. It has, and justly has, the reputation of great liberality in that direction. When it comes to even putting up a building at the cost of the city for educational purposes, we know well that nothing is spared in the way of adornment, in some instances, as well as adaptation to such purposes. I think we will vie with any other city in the country in the beauty of our buildings, as well as the cost. When it comes to the position of the State on this question, the Institute of Technology is a very marked instance of the policy of the State. They gave that land, as you are aware, for the building of that institution; they gave it on condition that \$100,000 should be raised within one year from the date of the passage of the act. The time expired, and not one quarter of the sum had been raised.

The CHAIRMAN. — Do you remember the year in which that land was given to the Institute of Technology?

A. I cannot tell exactly the year. I was connected with the institution at that time, and for several years subsequent; but the exact year I cannot recall. I want to add that the condition was that the building should be erected and utilized for the purpose proposed within one year from the passage of the act, in order to avail of the free conveyance of the land. That condition was not complied with. They then called for an extension of the time, on the part of the State, and it was granted, and that extension of time was nearly run out before it was possible to get contributions enough to put up a building on the land. It was my privilege to be associated then with the executive committee, especially with the raising of funds. Fortunately my relations with Dr. Wm. J. Walker, whose liberality is well known, were such that he was led to inquire of me the purpose of that institution, and to do something for it. It resulted in his giving \$75,000 at once, which, added to the \$40,000 previously obtained, with great difficulty, from various parties, brought the sum up to more than \$110,000,

and compliance with the conditions of the grant was made. I want to call attention to the difference between the condition in that grant and that of the present institution, which possesses already a building which cost over \$600,000; and the mortgage spoken of, \$200,000, is comparatively insignificant. Now, in the one case it was much more difficult to bring contributions *de novo*, and hence the Legislature was obliged to retain the fee of the land. They meant that the land should not be used for any other purpose than that contemplated by the petitioners; and it has not been.

Here we have a case where the building has been erected. It has for many years been taxable property. It is exempt from taxation now, but it has paid a great deal into the city treasury in taxes. It has been the policy of the State and city to deal liberally with all institutions whose objects are in the direction of educating the people. We do not need to make any argument in regard to this Conservatory as an educational institution. The policy is clearly the same with the government of the United States, when it comes to aiding the cause of education. I wish to call attention to the fact that ex-President Hayes has brought forward a plan for donating the public lands and distributing them among the States for educational purposes. It will probably be a topic before the next Congress. The people all over the country are alive to what shall be done by the government, in coöperation with our citizens in promoting education. You have the coöperation of some of our best and most liberal citizens in this case. The trustees, as you are aware, are men of means and liberality — some of them, not all. That is well indicated by the fact that one of them has really bought the great organ, and is ready to give it to this institution if they will put up a proper place for it.

Then there was a point made by Gov. Rice as to the policy of the City Government in parting with its lands there, to look at something merely besides intrinsic value; that they are to look at something beyond that. I submit that in this case you will get something which cannot be measured in dollars and cents. It is a benefit which no man can measure. Right in connection with this question I recollect that when Gov. Rice was mayor one of our most enterprising mechanics asked the City Government to sell him the South Boston institutions, six acres of uplands, and three hundred thousand feet of flats, and they consented to let him have that piece of property for about thirty-five thousand dollars; but he had another condition, which was that he should build steam-engines for ten consecutive years. He accepted his deed upon that condition, paid his cash payment; he complied with the condition, and built steam-engines for ten years, and got from the city a clear title to his property. That was when Gov. Rice was mayor. He illustrated that policy by saying that he looked at something beyond mere intrinsic value. As I said before, the city sold six acres of uplands and three hundred thousand feet of flats for about thirty-five thousand dollars, with that extraordinary condition. The condition was complied with by the construction of steam-engines for ten years in succession, when the gentleman got a clear title from the city. This is a much smaller affair. When we say we want this land conveyed for a nominal sum

we want you to look beyond its mere monetary value. We cannot sustain this institution without at the same time promoting, directly and indirectly, the institutions of this city and country. This is an institution almost national in its character, but so far allied to the local interests of Boston that it may very properly receive, as I think, your very liberal consideration by the transfer of that property for a nominal sum. As I understood your question, I think it is one for the City Government itself to determine what shall be a nominal sum. We have no power in the case. It is for you to determine what the nominal sum shall be, and how far the object to be attained justifies your conveyance for a nominal sum. I do not know as it is worth while to detain you any longer, but I will answer any questions you desire to ask.

THE CHAIRMAN. — Are you connected with the Board of Trustees?

A. Yes, sir.

Q. I suppose that all Gov. Rice has told us regarding the institution, if I should wish to ask the same questions, would be answered in the same manner?

A. Certainly. I want to say what I forgot to mention, that I think the point which Mr. Whitmore has made, is well taken, and I sympathize with everything he thinks and has said in regard to the proper care and removal of the dead. It is a sacred trust. But it is an old adage that what is done by another is done by one's self. I assure you that if the City Government should convey this land free to that institution, they will prove good agents for the execution of that trust. If the city prescribe the manner in which the remains of the dead shall be removed, they will have as effectually done it as if it were under the immediate supervision of the Board of Aldermen and the Common Council. If they were dealing with irresponsible individuals, I think they might put in a condition in the deed that would secure the carrying out of the wishes of the city in that respect, and I do not know any objection to putting in a condition that it shall be done to the satisfaction of the government. I think it is hardly to be presumed that gentlemen of the character of those in the management of this institution cannot be considered as having no regard for the sacredness of the dead. If I thought so I would resign my position on the Board to-morrow. But I know my associates, Gov. Rice, Gov. Claflin, Rufus S. Frost, and many others, and I know there is no reason to suppose that they would not have the most profound respect for that trust which the city has in the care of the remains of the dead.

MR. WHITMORE. — Has this matter of the removal of the dead occupied the attention of the trustees?

Q. I do not know, as, on account of my engagements, I am obliged to be absent from the meetings of the trustees.

Q. Have you any idea as to the cost?

A. No, sir, it would be a new question to me, and one perfectly safe in the hands of the City Council. You speak of taxation. Now, upon that petition you will find the names of many gentlemen who are heavy taxpayers. It seems to me you have a fair repre-

sentation of those who pay the taxes, as to their opinions upon this subject; and if I am correctly informed you have no remonstrance from that class who are heavy taxpayers. You have a remonstrance upon other grounds, if I am correctly informed, but not on the ground that it would be extravagant to so dispose of this property.

Dr. TOURJÉE. — I am satisfied to leave the matter here.

The CHAIRMAN asked if there were any gentlemen who desired to be heard on the other side.

OLIVER C. STEVENS said he did not care to commence his statement on behalf of the remonstrants at this late hour, and if the committee were willing he should prefer a continuence.

Dr. TOURJÉE asked the privilege of putting in further testimony if the hearing was continued.

The CHAIRMAN said that would be in the nature of rebuttal.

(Adjourned to to-morrow evening at 7.30.)

SECOND HEARING.

OCTOBER 26, 1883.

The hearing on the petition of the New England Conservatory of Music was continued at 7.30 P.M., in accordance with adjournment. All the members of the committee were present.

STATEMENT OF OLIVER C. STEVENS ON BEHALF OF THE REMONSTRANTS.

Mr. Chairman and Gentlemen: — Is it the intention of the committee that the remonstrants should begin before the other side are through? I do not know whether the other side have closed their case or not. One of the newspaper reports said that they had rested their case. I do not know whether they had concluded their case or not.

The CHAIRMAN. — I understood yesterday that they had rested their case, but that if a second hearing was granted they would claim the right to put in rebuttal evidence, and evidence of that sort.

Mr. STEVENS. — I do not wish, Mr. Chairman and gentlemen, to appear before you in the light of an obstructionist, as one who is antagonizing the Conservatory of Music, and endeavoring to abridge its usefulness. I do not come here either as one of that class whose absence was so properly noticed by Mr. Tobey, yesterday, when in his remarks upon the petition he used the following language: —

“ Now, upon that petition you will find the names of many gentlemen who are heavy tax-payers. It seems to me you have a fair

representation of those who pay the taxes, as to their opinions upon this subject ; and, if I am correctly informed, you have no remonstrance from that class who are heavy tax-payers."

Gentlemen, the remonstrants are not heavy tax-payers, but they ask to have their opinions and wishes considered, and that their rights be respected the same as though they were heavy tax-payers. The objection was raised at one of the former hearings that we were interested parties, and that, consequently, what we said should be taken with grains of allowance. That I admit. Your remonstrants are interested parties. Those parties who are not interested have kept away from this and the former hearings, and the gentlemen who have spoken in behalf of the Conservatory have been interested. Their president, executive committee, and trustees, have a personal interest in the success of that school, and they have been here to speak for the Conservatory. It is not to be expected that people who have no interest, and care nothing about it, should come here and speak against it.

This subject comes before your committee, as I understand, on two orders passed by the Board of Aldermen, the first of which was that the Mayor be authorized to convey a certain parcel of land containing 5,500 square feet for one dollar. The gentlemen say they did not ask to have this land given to them for one dollar, or any other sum, but that it should be conveyed to them. That is the language of their petition. A conveyance in which no consideration is named is one where the parties expect that they will get the land for a nominal sum. The person who drafted that order which was passed by the Board of Aldermen saw fit to insert one dollar as the consideration for that land ; and on that petition, and on those orders, the question now comes before you ; and it is not for me to say whether the Conservatory is responsible for the request that that land be given to them for one dollar, or not. The first grant of this land, which was authorized by the Board of Aldermen, was for 5,500 square feet. That order was passed without opposition, if I remember rightly ; there was but one alderman who did not vote in favor of it, and he did not vote at all, and I think that is what is shown by the slip enclosed in one of the papers. After having successfully carried their petition through the Board of Aldermen, and received the grant of 5,500 feet of land, without opposition, they came forward and asked for a grant of 11,000 feet. I do not know, gentlemen, but if 11,000 feet were granted they may come again and ask for 22,000.

The land which it is proposed to grant to them is what is known as the South Burying-ground, which was dedicated, as I understand, to public uses as a burial-ground in 1810, laid out by vote of the town of Boston as a burial-place, and that ground is full of the bones of the dead. They come here, gentlemen, and tell you that on this piece of ground there are but four tombs, and that the owners of those tombs have agreed to sell all their rights there ; that there soon will be no bodies in those tombs, and that, therefore, the right of the dead to rest in quiet will not be invaded by them. But I know, gentlemen, and we all know, that that ground, from

within three feet of its surface to a depth of six or eight or ten feet, is filled with the bones of the dead. Perhaps they are the bones of paupers; may be they are. But are they not entitled to rest in peace and quiet? Are the gentlemen to come here and say that, because no rich tax-payers come here to oppose this, and because the bones in that ground are those of paupers, that the dead are to be disturbed and the ground to be used for other purposes? I do not think, gentlemen, that that is the position which this committee will see fit to take upon this question.

Then, as to the value of the land, when it comes to letting them have the land for some consideration. Estimates were brought in here, and it is urged that this land is of no value; that it should be sold to this Conservatory for a merely nominal sum, and that the land is of no use to the city as it is now. But, gentlemen, you are very willing to take your Assessors' valuation on almost all matters of this sort, and they say that land is worth two dollars a foot, and we know that the land of one of the remonstrants is taxed for two dollars and a half a foot. We know that the land upon which the Conservatory stands was taxed for a sum upwards of two dollars a square foot, if I am not mistaken, and that the land on Rutland, on the other side of Washington street, is taxed at from one to two dollars a foot.

It has been urged that a proper reason for making a sale from this land was that sales had already been made from it. The grant to Mr. Davis was spoken of, and it was also used, not only as a precedent for alienating some of this land, but also used as a precedent for putting a very low value upon the land to be sold to this Conservatory. Now, gentlemen, let me tell you about that. When Mr. Davis got that land, one portion of it was for the purpose of making a passage-way. The city let him have that land at a very low figure, because, on one part of it, there were tombs, which he was obliged to move at his own expense. Having bought those tombs at prices ranging as high as \$2,500, he laid out a passage-way in the rear of the land occupied by him. The city reserved to itself the right to enter that passage-way from the southerly side in the same way that the abutters on the northerly side had a right to enter it. They also compelled him to agree until the passage-way was made a thoroughfare running through to Washington street, to maintain it at his own expense in good order and condition, and they also required that he erect along the line of the passage-way, at his own expense, an iron fence at a cost of about \$2,000, as I am informed; so that, gentlemen, the grant of land to Mr. Davis for nothing really cost him considerable.

Now, that brings me to another view of the case, which is, that at the time that conveyance was made to Mr. Davis the rights of the abutters were considered and taken into consideration. The land there was conceived to be valuable and desirable for building purposes, because, like the land on Park street, it had an open place in both the front and rear. For that reason one gentleman built a house there, and, when it was proposed to cut off the vista in the rear, the city came to his rescue and said that his rights in that view should be protected, and that he had rights there; and at his

request this open, iron fence, instead of a high brick wall, was put there. At his request a certain portion of the land, which was not to go into the passage-way, but which was to be availed of for building purposes, had a restriction put upon it, that it should not be built upon more than fourteen feet above the sidewalk. In that way they recognized the rights of the abutters to light and air coming over that ground. We claim that we have certain rights to the light and air coming over that ground, and when they come here and tell you that the view from Dr. Stevens' windows will not be interfered with, and that his light and air will not be interfered with, they tell you that his right, then, is simply to look out of his windows at simply a right line, and that he cannot look to the right or left, and it makes no difference whether his light is cut off in this direction or not.

Another reason which has been brought prominently before the committee is, that the Conservatory of Music is upholding, to a certain extent, the respectability of the South End; that that section of the city is growing unfashionable, and that the Conservatory being there tends to keep up the value of property. If the houses there are no longer desirable as places of residence for private families, the only other use to which they can be put, unless they are turned into shops, is to make them boarding or lodging houses. I am informed that the houses will not bring such high rents if used for the purpose of lodging students as they do now, for the same reason that the persons who would hire them to board and lodge students cannot get sufficient out of them to pay the rents which they do now. The value of land is measured very largely by the rent it will bring. If a house now lets for \$1,500, and is afterwards let for \$1,200, it is because its productive power is less. Unless a person taking boarders can afford to pay \$1,500 rent, then the value of that property is diminished, for their profits will only allow them to pay \$1,200. It was suggested, and has been suggested several times, that since the Conservatory has occupied the hotel there has been an increased demand for houses in that neighborhood. I do not know, gentlemen, whether the fact that the houses were hired afterwards proves that the Conservatory increased their desirability. I can only say that one house was hired afterwards, but it was not because the Conservatory was there. That house is used as a lodging-house, and they will not take pupils from the Conservatory there. Another house, which is used as a lodging-house, refuses to take pupils from the Conservatory, because they cannot pay enough. If the lady who keeps that house has to take pupils she must have the house at a lower rental, and if she has a lower rental the Assessors will be requested to lower the taxable value of that property.

It was said the other day that the only remonstrant to granting the prayer of the petitioners was Dr. Stevens, and that the other persons who own the house nearest to the hotel did not see fit to come up here and object. Gentlemen, is that because it does not injure that house? If you will look at the map you will see that the piece of land which it is proposed to convey extends across the rear line of that lot, and a building erected there would cut off

their view and injure their house far more than it would ours. That house is owned by the Suffolk Institution for Savings, and they expect to be able to sell it to the Conservatory. Pray, how else are they going to have an entrance to this new music hall. They cannot get into it very well through their own building. A passage-way closed at one end and ten feet wide would be a very insufficient means of ingress and egress. But between the Conservatory and this house, the owners of which do not appear before you as remonstrants, there is a vacant lot twenty feet in width. That lot will make a sufficient entrance, a sufficient passage-way, and if the gentlemen of the Conservatory wish that lot for a passage-way perhaps the owners of that house will say, you must take our house as well, or you cannot have the land. I only give that as an explanation why they do not come here and oppose this petition.

At the hearing the other day, one of the gentlemen who spoke in behalf of the petitioners, Mr. Tobey, said that the estates owned by the Conservatory cost \$600,000, that the mortgage was about \$200,000, a mere bagatelle, as it were, in proportion to the value of the estate. The deed by which that property was conveyed to the Conservatory of Music states the consideration to be \$275,000, and mortgages were recorded at the same time and in the same place with that deed amounting in all to \$275,000. There is a mortgage to the Essex Savings Bank of \$120,000, a second mortgage to Mr. Ballou, the former owner, of \$105,000, and a third mortgage to Charles C. Burr for \$50,000; so that the property is pretty well encumbered. The gentlemen were asked at the hearing the other day the amount of reduction on the mortgage, but they had not the figures in hand, and will probably be able to state that this evening.

The CHAIRMAN. — May I ask you if you have seen these figures at the Registry of Deeds?

A. These figures were taken at the Registry of Deeds at the time of the former hearing. The gentlemen told you that they had reduced their mortgages some. I have not looked since last spring, but those were the mortgages recorded last spring.

Q. Have you anything further to state as to the rate of interest at which these mortgages were taken?

A. No, I haven't anything here. I had a memorandum of the whole thing, but I did not bring it in because I did not suppose it was necessary. I will not be sure, but I think the last mortgage of \$50,000 was payable at the option of the mortgagors, but I won't be sure about that. I think it was so arranged that it could be paid piece-meal. Am I right, Mr. Tourjée?

Dr. TOURJÉE. — We will speak after you are through.

The CHAIRMAN. — Can you tell us anything about the time the two larger mortgages have to run?

Mr. STEVENS. — No, I should only speak from recollection. I prefer not to guess, lest I misrepresent.

Q. Do you remember the rate of interest at which they are mortgaged?

A. No, I do not. But leaving for a moment the question of the value of the Conservatory, let us look to the degree of success

which it has attained already, and see what would be the result if this petition were denied. They ask for a music hall, and they state that they need it in order that the school may be a success, and that its usefulness may be further increased. But they stated to you at the last hearing, as a business matter, that without the proposed hall the school has been a success, that the various departments, all of them, board, rooms, tuition, and instruction in the higher branches, if I understood them correctly, have shown a profit. If that be so, the school will continue to bring its numerous pupils to Boston, and their disbursements will continue to be made in this city, to the profit of all those who are interested. Another reason which has been suggested for making the grant of this land is, that a suitable hall may be provided in which to place the great organ. Now, that organ is good for something or it isn't. I do not pretend to know. The Music Hall Association are apparently desirous of getting rid of the organ. If it is a good organ, I do not see why they should be so anxious to part with their property. Another question, however, comes up here, and that is the power which the Music Hall Association have to part with their property in that organ. That organ was a gift, and it was received as a gift by the Music Hall Association, and there is now pending in the Supreme Court, at least the docket shows that the suit has not been discontinued, a bill in equity praying that the Association be enjoined from parting with that organ and removing it from that hall. Another thing which should be brought to the attention of the committee is, that it seems a little inconsequential, after voting large sums of money to lay out parks in West Roxbury, South Boston, East Boston, to beautify the Public Garden, to make a park along the banks of the Charles, to make a park out beyond Commonwealth avenue,—it seems to me a little inconsequential that, having done that for the purpose of having breathing-places for the people in the heart of a great city like this, to offer to close one of the breathing-places which we now have. At the hearing given several years ago, in 1879, I believe, where the question of closing the Granary Burial-ground and King's Chapel Burial-ground was agitated, it was distinctly stated, the question being upon the subject of closing the tombs in those grounds, that, although people were willing that the tombs should be closed, they were unwilling that the grounds should be discontinued and used for other purposes. One of the arguments brought forward prominently at that hearing, as you will see by consulting the report, was, that in a city like this, which is constantly growing, they needed these breathing-places. They tell us we do not need any breathing-place in this burial-ground, because we have the parks in front. Well, gentlemen, down there, within a stone's throw of these burial-grounds, which it was proposed to close in 1879, they had the Common of forty acres, running down to the Public Garden, and beyond that Commonwealth avenue, beyond which there is to be a park. If those burial-places are to be kept open as breathing-places, how much more necessary is it that this South Burial-ground should be kept open for a breathing-place? At those hear-

ings, too, there was something said about sentiment. I believe that Gov. Rice said at this hearing that there was no tender sentiment to be disturbed, no tender sentiment to be invaded. But before the hearing began he told me that it was the Strangers' Burying-ground; that it was a piece of land set apart by this city to receive the bones of strangers. I do not know whether it would be a false sentimentality to ask you to respect those bones, and leave them alone, or not.

And what necessity is there for closing this ground? It is not unsightly. If it has become an eyesore to anybody, it is simply by neglect. The time was when that ground was as beautiful as the Granary or King's Chapel grounds, when its paths were nicely swept, when its flower-beds were carefully attended to, when the gates were open every Sunday afternoon, and rich and poor alike walked about under the shade of those magnificent trees. If the tombs have fallen into decay and broken down, the city has the remedy in its own hands. The statutes give the city the right to make repairs upon those tombs, which become a lien upon the tombs, and if that lien be not discharged in twenty years the city owns the tomb, and it cannot be discharged after that.

Now, Mr. Chairman, coming to the question of precedent. The Public Library and the Institute of Technology have been cited as authorities. You did have the Lincoln Monument and the Brewer Fountain cited as precedents one day, but not seriously. But the grants to the Public Library and the Institute of Technology were both on conditions. The gentleman who spoke for the Conservatory told you the other day, that if that land was granted to them they wished it without conditions; that they did not propose to take a lease of it, but that they must have the land itself. The Act passed by the Legislature by which the Public Library received the right to build on Dartmouth street, being Chap. 222 of the Acts and Resolves of 1880, contained the following provision: This certain lot of land was granted to the Public Library to hold, occupy, and control free of rent. To hold, occupy, and control free of rent. But it is subject to certain stipulations. Within three years from the date of the passage of that act the city was to begin its building, and when that building was finished, all the citizens of the Commonwealth—not all the citizens of the city, but all the citizens of the Commonwealth—were to have perpetual right of access thereto free of charge, and under such reasonable regulations as the trustees might adopt. And if they made a default in any of these conditions, or if they used the land for a purpose foreign to that for which it was granted, the Commonwealth was to have the power to reclaim the same by process of law.

Now, sir, there are two things in that grant to be taken into account, in using it as an authority to be followed in this case. In the first place you will notice that they only had a usufruct of the land. It was to be held, occupied, and controlled; they were to put up their building. The portion of the land not covered by the building was to be laid out in a satisfactory manner and maintained at the expense of the city. The Public Library, as I understand it,

is now the property of the citizens of this city. I do not understand that the citizens of this Commonwealth have any rights in it except by courtesy. But if the building is put upon that land conveyed under this grant, the use of which was conveyed under this grant, it was to be perpetually for the use of the people of the Commonwealth, so that the city does give something for that land, be it much or little, and if they use it for any other purpose than that of the Public Library, that land is forfeited to the Commonwealth. Take the case of the Institute of Technology. In the Acts and Resolves of 1861, Chap. 183, it is provided that if within one year from the passage of that act they prove that they are duly incorporated under their charter, and that the funds have been subscribed or guaranteed, or otherwise secured to the amount of one hundred thousand dollars, it may then hold, occupy, and control — hold, occupy, and control; the same words used in the other grant — that portion of the land hereinbefore mentioned, for educational purposes, free of charge. But that was subject to certain stipulations. Persons from all parts of the State were to be eligible as students; the museum was to be open to the public as often and as freely as possible; and they were to build their building within two years; and that portion of the land which was not covered by a building was to be kept in proper repair and to be maintained in a condition satisfactory to the Governor and Council; and if any portion of that land be appropriated to any purpose foreign to the grant, that land was to be forfeited to the Commonwealth. Now, is there any good reason why a different grant should be made by the city to this Conservatory than was made by the State to the city and the Institute of Technology? If there is I have yet to learn what it is. These gentlemen come here and tell you that they will not take the land unless they can have the fee. They are unwilling to take it burdened with conditions which other institutions have consented to bear. They must have their land free and clear.

There is one matter which I had omitted, and which I had intended to mention, and that is the question of taxes. The report which I saw may be incorrect; but the "Herald" report of the last hearing said that letters were received from various real-estate agents saying that the value of that land was now nothing, but that if it was sold it would become valuable as taxable property. I understand, gentlemen, that it is proposed to convey that land to the New England Conservatory of Music, whose property, as its director told you yesterday, is exempt from taxation because it is an institution for the education of youth. If, therefore, this piece of land is conveyed to them, how does it become taxable property?

Then there are certain tombs there which are an encumbrance. The Conservatory requests a warranty deed from the city, which, if I mistake not, is contrary to the usual custom. The point was suggested at the last hearing, that, in giving the public license to use that as a burying-ground, it was possible that the city had incurred certain obligations which it would find somewhat difficult to avoid. I do not pretend to know, whether having dedicated that land to the public as a burying-ground, the city is obliged to obtain the

consent of the personal representatives of those who are buried there before the bodies can be removed or not. I leave that as a question of law, upon which doubtless your corporation counsel would pass with more wisdom than I. But for this land to be conveyed to the Conservatory for a nominal price, for a low price, or any price at all, why should it not be conveyed to them in the same way that the land was conveyed to those other institutions? I would respectfully suggest to your committee that should you report in favor of conveying this land, you also report certain conditions affixed to the grant. I would suggest that before your conveyance is promised, the Conservatory bring you indisputable proof that they will be able not only to pay a consideration in money for the grant, but that they will be able to begin, build, and equip their hall, and that they obtain whatever consent of the personal representatives of those who are buried there is necessary to free the city from all liability. I should also suggest that this grant be coupled with the reservation that no change be made until the Conservatory is able to carry out its projects completely; that they be not allowed to disturb the graves or cut down the trees, or make any alterations up there which will injure the place as a park until the city is assured that the ground will be covered by a hall, and that the hall will be completed.

Of course, gentlemen, the New England Conservatory of Music, conducted upon its present basis, is entering upon untried ground. It has been a success in the past. It is a success now. But that does not justify you in concluding that it is a success now in a pecuniary point of view. By increasing its liabilities, expenses, and entire equipment, will it or will it not be a success? Should they put that hall there, and conclude to abandon it, would the city be getting a fair consideration for the land? Suppose, gentlemen, you let them have that land at a low price in view of the circumstances, and that you give them an absolute conveyance, if the school abandons the hall, what is to become of it? Is the city to have any assurance that the hall will be maintained, or the abutters to have any assurance that a hall, which may be tenantless, which may be unnecessary, shall not be used for a piano-forte factory, or riding-school, or stable?

Gentlemen, I fear I have already taken more of your time than I should. I thank you for your attention.

The CHAIRMAN. — I would like to ask you one or two questions. Before the New England Conservatory of Music was removed to the St. James Hotel, did you know of many houses vacant in that neighborhood? Were the houses generally leased or occupied, or was it unstable? I do not mean particularly on Newton street, or Concord street; but in the immediate neighborhood.

A. I do not think the houses were any more vacant than they are now. If you go back five or six years, you will find that the houses were largely occupied by private families; but with the increased facilities for getting into the more fashionable parts of the city, many of those private families have moved away, and the houses are now used for lodging-houses. I do not know that there

are more vacant houses there now than there were two or three years ago.

Q. You have lived there steadily and constantly?

A. Yes, sir.

Q. For how many years?

A. I have lived there for 24 years. I was very small when I went there.

Q. Have you noticed that since the New England Conservatory of Music moved there, the number of vacant houses is any smaller than it was prior to their coming?

A. I cannot say that I have noticed it. It may be so.

Q. Have you heard anybody speak of it?

A. I have heard it said before the committee.

Q. I mean away from here?

A. Away from here I have not heard it said; but it may be true.

Q. In regard to the vacant lot that you spoke of, as I understand it, that vacant lot adjoins the end of the Conservatory nearest Washington street?

A. Yes, sir.

Q. And on the other side of the lot is a house that formerly belonged to Mr. Davis?

A. Yes, sir.

Q. Did the lot belong to him, also?

A. The lot did.

Q. Do I understand that the same party holds possession of that house and lot?

A. The same; the Suffolk Institution for Savings; they hold both pieces of property.

Dr. STEVENS. — And they want to sell badly.

The CHAIRMAN. — How long have they held possession of it.

Dr. STEVENS. — I think they took it under mortgage somewhere about four or five years after Mr. Davis died.

Mr. WHITMORE. — I should like to ask Mr. Stevens if the present condition of the land is in any way offensive,— I mean beyond the open park?

A. I do not think it is. It cannot certainly be so considered, only in that there are some of the tombs where the doors are a little out of joint.

Q. I meant in the way of positive injury by any bad smells coming from the yard?

A. I do not know of any, gentlemen, and I do not know of a more healthful locality than that around there.

Q. You spoke of the care of the yard. Has there been any change of late years in regard to the attention given to that you have noticed?

A. Not of late years. I cannot say how long ago they closed the gates to the public. I can simply say that when I was a lad I used to go in there, and used to see people in there Sunday afternoons. It was opened just the same as any park would be.

Q. It is not open now?

A. It is not open now. The gates are never open, the paths

are not swept with regularity and the flower-beds have been neglected.

Q. Have you ever looked at the list of the present tomb-owners on this side of the yard?

A. No, I have not.

Q. Was any attempt made by you, or anybody to your knowledge, to call upon the owners of the tombs around there to come to this hearing?

A. Not to my knowledge.

Q. You do not remember, I presume, when the St. James, or rather the wing of it, was built?

A. I do.

Q. Do you remember when that square on James street was built over?

A. I remember when the Conservatory building was built. As to that particular corner I have no distinct recollection. Dr. Stevens remembers about it.

Q. Of course your recollection would not be so very strong?

A. My recollection would be that of a boy. I simply remember that when they did the digging there they struck coffin after coffin.

Q. Did you see those?

A. I saw those. The ground was completely honeycombed. They had to dig down in order to make the foundations for the fence, and I saw the coffins taken out.

Q. What fence was that?

A. The iron fence between the passage-way and the burying-ground.

Q. Built by Mr. Davis?

A. Yes, sir.

Q. How deep were the foundations there do you imagine?

A. It was down below the frost.

Dr. STEVENS. — It was upwards of four feet.

The CHAIRMAN. — Do you remember when this building was in process of erection, were people attracted there by these sights such as you describe, in digging for the foundations, by the sights of the coffins?

Mr. STEVENS. — As to that I cannot say. I was about there, but being a small boy, it did not make any particular impression upon me whether there were many people there or not.

Mr. WHITMORE. — Do you think that if that place were open on Sundays, and the paths were kept clean — they are all there, of course, and kept in good condition, — that is, they are perfectly safe to walk on?

A. Certainly.

Q. Do you think if they were clean, and as much attention was given to that yard as to the Granary or King's Chapel grounds, do you think it would be resorted to by the people in that neighborhood?

A. I do not see why not, after they once got into the habit of going there, and why they would not go the same as they used to. You must remember that that ground was closed, and the general

impression is that it is closed. But if it is open regularly, I do not see why, within a year or two, they would not go there.

Q. Are there any trees there?

A. I think it has one of the finest growths of trees in the city. The trees are finer than those on the park in front of the house.

Q. Are the parks in front of the house much resorted to? Do the people really go there and stay long?

A. Well, the parks are —

Q. Do the people sit down and stay there, and walk around to a considerable extent?

A. Oh, yes, the people go there, and children go there. They go more to Blackstone square than Franklin square. In the summer you will see many people there. The parks there are not cared for in the way that the parks are in other parts of the city.

Q. You know something about the value of real estate, what would be your judgment in case a street is laid out there in extension of Rutland street, would the land on that extension be worth approximately — the land on the other side of Washington street — we know the value of that and what it amounts to, which would run from \$1.50 to \$2.50 a foot?

A. As to that I cannot say. There is, as you all know, a prejudice against land on the easterly side of Washington street for dwelling-houses. Whether that objection would hold for business I do not know.

Q. No; I mean for dwelling-houses. Rutland street has a smaller street on each side connected with it, and a little intermediate street between the larger streets, Newton and Concord. If the same class of houses were built on corresponding land, is it your judgment that they would not be worth as much as on the other side?

A. I cannot see any reason why they should not be.

Q. Of course, on every business street there is a preference on one side or the other for business purposes?

A. Yes, sir.

Q. But if two lots of land were laid out on the several streets, do you think it would make any difference whether they were on the east or west side?

A. If the houses were low in value, if they were such houses that a question of fashion would not enter into it at all, I do not see why they would not be worth as much on one side of Washington street as they would on the other.

Q. Do you think the matter of fashion enters into the occupancy of those houses on Rutland street and the other cross streets?

A. Not in those smaller streets. I do not think the people would look at it in quite the same way as if they occupied houses worth \$20,000 to \$25,000.

The CHAIRMAN. — You are speaking of the approaches to the house on the easterly side of Washington street. Take Brookline street on the other side of the square. Are the houses on that side of Franklin square considered less desirable than the ones opposite Blackstone square? I understand that Franklin square is on the

easterly side of Washington street and Blackstone square on the west.

A. Yes, sir. Take those houses on Brookline street, beginning at Washington street; there are four houses which are better and more desirable as houses than any other houses on Brookline street on the other side of Washington street, and I should suppose, I think that, those houses are in themselves so much better that they would be more desirable than the houses on the other side.

Q. These houses you speak of are on Franklin square?

A. Yes; where the Women's Bank was, and on that corner.

Mr. GOODMAN. — In other words, if the houses were equally good on the other side, towards Shawmut avenue, you think they would be more desirable?

A. Yes, sir; I think they would be worth a little more.

Mr. WHITMORE. — Is Mr. Davis, the one who built that building, living?

A. No, he is not; he died some years ago.

Q. I thought some one at the last hearing said he was here.

A. It was Mr. Davis' son.

STATEMENT OF DR. CALVIN STEVENS.

Mr. CHAIRMAN. — I have but a few words to say in addition to what has been said, but I propose to mention a few things, or rather give a few reasons, which, in my view, would go against disposing of that land at any price. In the first place, you are well aware that a calculation has been made that in twenty years the City of Boston will have about a million people. It is fair to say that this open space is in the centre, or if not in the exact centre, in the very central portion of the city. It has been said that so much money has been expended for making parks here, there, and everywhere, there is no reason why this should be kept open; but look at the position of that land. There is the great City Hospital within stone's throw. There is a respectable college near by in full operation. There is an orphan asylum fronting upon this very land. There is the Homœopathic Hospital right there in view. There will probably be others built.

Well now, it seems to me that the land should be kept as an open space and a breathing-place forever. That is one of the reasons I present why it should remain as it is. I have other reasons. One is, it is an injury — and I will not conceal the fact at all — it is a very great injury to me. I have built my house there. I paid a high price for the land with the understanding that it was to remain as it was. If that land is sold, or given away at any price, it is a very great injury to me. That is another reason. Another reason is [pausing] I had two or three other reasons, I shall think of them in a moment. I will speak on the subject of taxes.

This institution was a private and pretty sharp speculation. It paid taxes, I suppose. But this changing it to a public educational institution, instead of a private speculation, looks to me as if it were a clear dodge to avoid taxes. One other thing I will speak

about, which is this purchase by Mr. Davis. The last speaker has gone over this matter, and it is not necessary to say much about that. Mr. Davis did have to pay a very high price for the land. There were between thirty and forty tombs on the land he got, I think, and he had to pay a very high price for some of them. Besides the land he got for nothing, and what he got at his own expense, he had to make fences and make a passage-way, and keep it in repair; considerably more than one-third of it was laid out in the passage-way.

The Conservatory of Music, instead of doing so much for the City of Boston, as has been claimed here, seems to me to have taken at least three hundred thousand dollars' worth of property out of the hands of the Assessors which was taxed before, and, which, as Mr. Tobey said, cost \$600,000. If that was the case it would pay about nine thousand dollars annually into your treasury. That they have taken out of your treasury.

There are two or three other reasons I was going to give, but they have slipped from my mind now, and as the gentleman before me has said about all there was to say, it isn't necessary to occupy your time.

MR. GOODMAN. — Will you allow me to ask whether you think the erection of that building will injure your property?

A. I think it would, sir. That brings one thing to my mind, about the music hall being there. The question was asked Mr. Chase yesterday, what they were going to do for an ingress to that hall. He said they would have one. Well, now, is there any possible way of getting in there except through that vacant lot, or through the Conservatory? You can see there is a ten-foot passage-way within ten feet of my windows on one side, and a twenty-foot passage-way within thirty feet of my door, on the other side, and with concerts going on there night after night, and carriages going there at all hours, it would ruin my house, to say nothing about obstructing the view. How would you like to have a circulation of hacks there every other night, within twenty feet of your house?

THE CHAIRMAN. — Do you understand that the hall is to be let as a public hall?

A. If this is a public institution of learning, the whole thing is public; that is what they claim, and they claim exemption from taxes because it is a public institution of learning; and if this land is sold to them, at any rate, it is never to pay any taxes. Moreover, that vacant lot is taxed for three thousand dollars, and always has been. The moment they buy it, they take that away from your assessors. They said they wanted a public music hall at the South End.

Q. You understand they propose to let the hall for public entertainments, the same as the present Music Hall?

A. I don't know about that. I do not know whether they would do that, or not. Now, it strikes me that there are other places at the South End that would accommodate this music hall just as well as this. Now, the question was asked if they could not get this land, would

that hall be built. Is it proper for me to ask Dr. Tourjée a question?

The CHAIRMAN. — You can ask him through the chairman.

Dr. STEVENS. — Is not there any other place at the South End suitable for this hall?

Dr. TOURJÉE. — This hall is for the accommodation of a large school, and a large number of people who are living at the school. We do not want to ask ladies to dress up and go down town; but we want them to be able to step from their rooms into this hall. It will be used several hours in the day. It will be such a hall as they have at all such large conservatories, and colleges, and seminaries where the buildings are erected for that purpose,—the halls are supplied.

Dr. STEVENS. — It is not necessary to go down town, there are several large places.

Dr. TOURJÉE. — None which we want. We know something about our conveniences. We are doing just what other institutions have already done.

Dr. STEVENS. — You call that a public institution of learning. I ask the gentlemen of the committee if that was not done to avoid taxes?

Dr. TOURJÉE. — We have never been taxed. We are just like all other institutions of learning.

The CHAIRMAN. — I think the committee would rather that personal matters shall be discussed outside of the hearing. I wanted to ask Dr. Stevens in regard to the extension of the St. James Hotel and the building of an ell-part, on the part of the old burying-ground. You remember the time?

A. Yes, sir.

Q. Will you tell the committee any facts that you can in connection with that building, in regard to the scenes or events that took place at the time?

A. Well, Mr. Ballou bought the tombs there. They were full. Or rather, I don't know but they were city tombs; I rather think they were. But Mr. Ballou cleared them out. I know that there were cart-loads of bones thrown out of the ground and carted away. I saw them.

Q. You say thrown out of the ground?

A. Some out of the ground and some out of the tombs, as he had a considerable portion of the burying-ground.

Mr. GOODMAN. — Was that done in the daytime?

A. Yes, sir.

Q. Did it attract any considerable number of people?

A. Yes, sir, every passer-by would stop and look around. It didn't cause a crowd.

The CHAIRMAN. — Did it become necessary to take measures to prevent crowds from assembling there or stopping there?

A. No, sir.

Q. There was no police there?

A. No special policemen. There were always policemen around there; but there was no extra call for police that I know of.

Q. Do you remember whether the press, the papers of Boston, commented upon the occurrence at the time?

A. I do not think they said a great deal. I don't remember their saying much. This was a good many years ago. People around there were not quite so numerous as they are now.

The CHAIRMAN. — The committee are ready to hear any others that have any remonstrance to present.

STATEMENT OF CHARLES W. STONE, of 68 Chestnut street.

Mr. Chairman, I should like to say a few words as a remonstrant, both as a citizen of Boston, and as one who is in a very humble way a representative of the cause of music. I yield to no one in my love for music and in my desire to see its interests fostered in every way. Outside of my professional work, my entire time is given, in my own humble lines, to furthering its work in such way as I can. I had a good deal of respect for the New England Conservatory of Music. I should like to have its interests advanced in every legitimate way. But I do think this way of advancing its interests would be totally illegitimate, or at least unwise.

A great many people say that we have no rights which are natural and inalienable, that the only rights which men have are those which they acquire themselves. That may likely enough be very true. But I do think that the right which comes nearest to being a natural and inalienable right is the right of a man to feel that when he is dead and buried his successors in his State and in his city, if they be, indeed, of the same race and blood as he himself, are going to leave that ground inviolate in every case short of some imperative necessity. I furthermore believe it is a right of the living — a natural right as nearly as any right can be — to know that the graves of their ancestors are to be respected and protected by the community in which he lives. I have no personal interest whatever in the South Burial-ground. I have a personal interest in the Granary Burying-ground. Some of my ancestors, their bodies at least, sleep there. If by anything I can say or do during my lifetime, they will continue to sleep there unmolested, as long as I live. I expect that in years to come it will be hard to keep those graveyards from molestation. I feel in regard to the South Burial-ground that some one's else ancestors lie buried there, and I feel like lending a helping hand to protect them both for selfish and unselfish reasons; for selfish reasons, because I believe that the attempt to use our burial-grounds should be met at the beginning by those who have some interest in it, and for unselfish reasons, because I believe it is the part of honor to see that the rights of others should be respected as I should like to have mine respected. If it were proposed to take any burying-ground in this city for a purely public purpose, I should think it would be a mistaken and vicious policy, — a policy without any moral or legal right. As to the legal right advanced, I do not know; but as to the moral right, I have not the slightest hesitation in making my statement.

But it is not proposed to grant this land for a public purpose.

The New England Conservatory of Music is not a public institution in the broad sense of the word. It is a private enterprise; there is no question about that. They are asking a grant of public property for private purposes. If it were a grant of unoccupied land, I would not oppose it if the City Government said it was proper, and I should not protest. But a request to grant them a part of one of the public graveyards, — to that I do protest. It seems to me every person of right feeling must feel like protesting, if they only knew, as I found out at the last minute, that this attempt was being made. If there is one feeling that augurs well for the permanence of a high-minded and civilized community, it is that respect which we feel for the memory of our ancestors and the places where their bones are laid. If there is one single thing that tells of the disintegration of a community, and that at no distant day, it is that feeling which betokens recklessness about such matters. We expect to be on our guard because of attempts made by Mammon, from time to time to obtain a foothold upon such places. Eternal vigilance is our only safeguard. We have expected it in the past and shall expect it in the future. We are never shocked when it is attempted. But I am shocked when anybody comes forward in the name of music and attempts to have its interests furthered in any such way as this. Of all departments of work in this world, music of all things depends for its very existence upon the noblest sentiment. Who could wish to advance the supposed interests of music at the expense of a sentiment which is entitled to just as much respect as the sentiment which makes music so dear to many of us. I am ashamed of the New England Conservatory of Music for coming before the City of Boston with such a ghastly and sacrilegious request in the name of music.

The CHAIRMAN. — How recently has this matter been brought to your attention?

A. I saw it in the paper to-day that there was to be a hearing to-night.

Q. Before that you had no knowledge of it?

A. No, sir. I have been extremely busy in my professional work, so that it is impossible for me to read the papers constantly. To-day I happened to be on a railroad journey, and saw that this hearing was to take place, and I came around.

Q. Have you heard any comments among your neighbors or friends about this measure?

A. No, sir; I was entirely ignorant of it until I saw it in the paper to-day.

Q. You do not think the people understand that there is such a measure in view?

A. I know that those whom I am thrown in contact with do not know anything about it. I think that many would not care anything about it. I think many others would. But, so far as my personal acquaintances have gone, I have not heard it mentioned.

Q. I asked you this question because the matter has been before the City Government this whole year. The Committee on Public

Lands gave two public hearings, or one at least, and this is the first time you have heard of it?

A. This is the first time I have heard of it. It may be that I have seen in the past that the Conservatory had petitioned for some such step, but as to that I cannot say. But as for anything like a hearing at which it would be possible for any one to express his opinion one way or the other, to-day is the first time I have seen or heard any intimation of it.

Mr. GOODMAN. — Did I understand you to say that you are a teacher of music by profession?

A. No, sir, I am a teacher by profession, but music occupies my entire time outside of my profession.

Dr. STEVENS. — That graveyard there is full of bodies, and I do not think they could put a spade down in the ground without striking a body.

The CHAIRMAN. — Have there been any interments there in your time?

Dr. STEVENS. — In the tombs there have been, but not in the ground.

The CHAIRMAN. — The committee will listen further to any person who has any protest to make, or to show cause why this petition should not be granted. (No one expressed a desire to be heard.) Dr. Tourjée, is there anything you desire to say in rebuttal?

Dr. TOURJÉE. — I see Mr. Waugh present, whom we intended to call upon yesterday.

The CHAIRMAN. — I think you will bear in mind that the committee are now in a position to hear what is to be put in in rebuttal by the opposite side rather than new evidence. I do not want to apply the strict rules of legal practice, but we do not wish to begin at the beginning and go over the whole subject again. However, we will listen to Mr. Waugh.

STATEMENT OF W. WALLACE WAUGH, *Manager of the "Boston Home Journal."*

Mr. Chairman, I am very much surprised to hear the last speaker speak as he did in regard to the Conservatory, because if he is as interested in music as he says he is, he certainly must be aware that the New England Conservatory of Music has done more good for the advancement of music than any other institution in this country, and to-day it stands, not only in this country, but in the world, the highest. You may go abroad and you cannot find such teachers in the old conservatories as you find in the New England Conservatory here.

In regard to its being a private institution, it has been so in a measure; but, to-day, if there is a public institution, the New England Conservatory is one, and, if Mr. Stone had read the papers a little more, he certainly would have been better posted. I think nearly everybody who is thoroughly interested in music has known what the New England Conservatory is after. They have known what the City Government are doing, and, knowing that, if they

had read the papers, and had been thoroughly posted in regard to musical matters, they would have known what the Conservatory is doing, and that it is a public institution, with an effective board of trustees.

Now, I say, as Mr. Stone does, that I have made the cause of music my study for the last fifteen years, and I think I am in a position to back up the statements I have made.

Now, in regard to the burying-ground, I have respect for the dead as much as anybody. Yet, I think we should respect the living. We should encourage the people to get an education, musical and otherwise. Dr. Stevens has stated his objections to having a hall there. One was that it would be an injury to his property, because carriages would be driving around, and crowds of people be coming there at all hours of the night. He may wish the hall built in another neighborhood, where any other person would be obliged to come here and claim the protection of the government, as he has to-day. If it would depreciate his property so much, it certainly would do the same in any other place. Now, I think, and I believe my knowledge will back me up in it, that those interested in the cause of education—except, perhaps, some Harvard boys—are not very noisy at night, and that they pay proper respect at public entertainments. I have found it so, at any rate.

I wish the Conservatory might have the land, whatever the price the City Council may see fit to give it to them for. It needs the land, and to carry out the project which I am told the executive committee wish to undertake, they must have it. Now, in regard to saying that the Suffolk Institution for Savings own the building adjoining, and that the Conservatory will get a chance to buy it, I hope from the bottom of my heart that they will; and that the Conservatory will be prosperous enough to buy it, and, perhaps, they may buy Dr. Stevens' property. I am earnest in the subject because I am earnest in the cause of music. I have no interest in the Conservatory. I am not one of the board of trustees. I am only interested in the institution as a means of promoting the cause of music, and I want to see it prosper.

Mr. GOODMAN. — What is your business?

A. I am manager of the "Home Journal."

The CHAIRMAN. — What is the "Home Journal"?

A. It is devoted to society and musical matters. It is a weekly paper, published in this city, on Washington street.

Q. Do you know of any other parcel of land at the South End that would answer for a music hall?

A. Yes, sir.

Q. There are other parcels?

A. Yes, sir.

Q. Would you like to state where?

A. Yes, sir. Dr. Stevens' house would make a very good place.

Dr. STEVENS. — It isn't big enough.

Mr. GOODMAN. — Do you know whether it is the intention of the Conservatory of Music to use this hall in the same way that the

Music Hall has been used, for public purposes, concerts, and entertainments?

A. I have not had any talk in regard to that; but from what questions I have asked about the whole project, I should say it was to be devoted to the interests of the Conservatory. Now, if you will allow me to go a little farther, I will speak a little of the business I have been engaged in outside of the paper, which will show that I have given attention to this subject. I have been interested in bringing out many young singers. I have probably helped educate and bring out more young singers than any other man in Boston. I have been identified with several opera companies in Boston. To-day I have quite a number of people in the Conservatory, where I have thrown them, and it is through my influence that they are there. Doing that work, I think I am thoroughly posted in regard to the Conservatory.

The CHAIRMAN. — Do I understand that you have any pecuniary interest in music outside of your paper?

A. No, sir; I never allow myself to take a dollar, and I have never charged anything, for helping young singers.

Q. You have had an interest in troupes?

A. Yes, sir, and I have made money that way; but for one year I have been entirely out of it.

Q. Is the musical department of your paper one of the most prominent departments?

A. It is one of the most prominent. I might possibly say it is *the* prominent part of it. I am not only speaking for the people of Boston, but for the people all over the country. So far as pupils coming here being unable to pay their board, certainly some of the pupils coming here are as able to pay for their board as I am myself.

Mr. GOODMAN. — Suppose they wanted to build on the burying-ground on the Common or the Granary Burying-ground, would you think there was any objection to their building on those places, on the ground simply that they were burying-places?

A. No, sir; I should say that if the Conservatory was on the street where the Granary Burying-ground was in the rear, I think I should advocate it. I should not have the bodies handled disrespectfully. I know that my ancestors are being taken up and carried a good many miles from where they were buried, and I do not think it is any disrespect to them.

The CHAIRMAN. — Who is doing it?

A. Strangers are doing it under my own direction.

Q. Not under a city.

A. No, sir; I have to put it in the hands of those I can trust.

Mr. STEVENS. — At your request?

A. At my request. [To Mr. GOODMAN.] Do you ask me if I would object to it? If they said they wanted it to improve for educational purposes, I would not object.

Mr. STEVENS. — Suppose you went by the ground and saw them removing the remains of your ancestors without your knowledge, what would you do?

A. I should naturally find fault, as most Yankees do.

Mr. STEVENS. — I should like to ask if Mr. Waugh don't consider that there is a good deal of difference between building a music hall upon land now vacant and laid out for building purposes, and building in the rear of a gentleman's house where it was never supposed that the land would be vacant? The suggestion I would make is, that if a man built a house upon land where it was expected that there would be buildings he would take his chances; but if he built his house, as in this case, where he would not expect it to be built upon, there is a difference between the two cases.

Mr. WAUGH. — Dr. Stevens said he bought his land with the expectation that it would not be built upon. If he had stated unoccupied land, and the people around there wouldn't annoy them — of course I take him on what he says.

The CHAIRMAN. — Don't you understand that this music hall is to be a source of revenue to the Conservatory outside of its own pupils?

A. I do not see how it can be unless it increases the pupils. They had a small hall, which they used on every occasion; but they were obliged to take Wesleyan Hall or remodel their small hall. Those halls are certainly in use more or less. Now they certainly have more pupils, and the institution is taking new life, and people who never had much respect for the Conservatory before now see it is bound to live. Nothing succeeds like success. People are indorsing it and sending pupils there. If it increases during the next five years as it has increased during the last few years, I do not see why they should not need a larger hall.

Mr. GOODMAN. — In other words, you think it would be a good investment for them to erect that building, and they would get sufficient income to warrant it?

A. I should say they cannot carry on their business successfully without it.

Dr. STEVENS. — I saw in the paper the other day that the elevated railroad in New York had to pay a man twenty thousand dollars because they made a noise around a man's house.

Mr. STEVENS. — I should like to ask if the gentleman considers the Conservatory would be obliged to go out of business if they do not get this hall?

Mr. WAUGH. — Well, I cannot answer that question because I am not fully posted in regard to their affairs, but I think I can say like this, that like any other large business, if they are cramped for room, they cannot grow, and if they cannot grow one way they must go the other way. I should consider that if they were obliged to go the other way it would show to the public that they would be a failure, and it would be a failure, and certainly Boston cannot afford to lose that institution.

Q. I should like to inquire if the hall is a necessity? One gentleman has testified that every department has proved a pecuniary success since they moved to the South End. You have no reason to suppose that the same state of affairs will not continue?

A. I will answer that question like this: If you read the circular of the Conservatory you will see what they propose to do.

Promises made in the past they have kept. If they increase their business in the next five years as they have in the past, they will have to curtail their promises, as they cannot accommodate their increased patronage without having increased facilities that will enable them to make their promises good. As soon as they fail to make their promises good, people will lose confidence in them.

Q. Is that one reason why the city should give this land, in order to help them make their promises good?

A. Yes, sir. I will answer that by saying it is the duty of the City of Boston to do all it can to advance the cause of education and give the public a chance to better themselves in education. It is the duty of the City of Boston to do all it can to aid this enterprise.

Q. As I understand, the Conservatory has made certain promises which it will be unable to keep unless it gets this grant of land. Am I correct?

A. No, sir. I said they made these promises when they were able to keep them, and they had kept every promise they had made. They go into their new house as many business firms do. They find that their business has increased, and I think if you ask the number of pupils to-day you will find that their patronage has increased more than they expected. They find that the hall they proposed to use is not large enough, and they must get another place.

Q. If the chairman will pardon me, I will endeavor to make myself clear: Whether or not the Conservatory had promised to erect this building, and their success was based upon this promise, and they were not able to keep it.

A. No, sir, I will answer in this way: If you read their circular they state that there will be free lectures and free concerts, lectures on harmony and other subjects. Each pupil coming there is entitled to have that as a part of the instruction, and also many other advantages in concerts and entertainments; and the Conservatory cannot do it.

Mr. STEVENS. — I would inquire if they have made any promises already which they are now unable to keep?

The CHAIRMAN. — Have they made any promises dependent upon the transfer of this property?

Mr. STEVENS. — Have they made any promises in regard to instruction, which they are not able to fulfil?

Mr. WAUGH. — I cannot say. I am in no way connected with the Conservatory any more than Mr. Stevens. I am no more interested in it than he is.

The CHAIRMAN. — Have you heard that the New England Conservatory was connected with Boston College as its musical department?

A. I think some years ago there was an idea that the New England Conservatory was to be the musical department of Boston University. I will not say upon knowledge, but it is individual opinion; but I think the only thing lacking was the facilities. But if this scheme is carried out they may make it successful.

Q. Do you think they are looking to a union with Boston University eventually?

A. I do not know, but I think they will work in unison with them. Whether they will have any connection with them I don't know.

Q. Do you know whether there is any connection with them, or is it on an independent basis?

A. I don't know, but I should say it is on entirely an independent basis.

STATEMENT OF DR. STEVENS. — *Resumed.*

DR. STEVENS. — There has been much said and many letters brought here to show that the property had universally risen in price at the South End in consequence of the Conservatory of Music going there. I offer myself as a witness to the contrary. I have been there before, during and since the war, as a practitioner of medicine, and been in every street, and been in a house in every street, and have known of almost every house sold there for a quarter of a century, and I here testify that the Conservatory of Music has not benefited the South End in the least. I do not say this to injure the institution. It has had no effect whatever except upon two or three houses. This cry that the Conservatory has benefited land is as idle and cheap talk as can be entered into. I know whereof I speak.

The CHAIRMAN. — Mr. Chase, have you anything to say.

STATEMENT OF MR. CHASE. — *Resumed.*

MR. CHASE. — If our side is at liberty to speak. We supposed we had the floor before.

The CHAIRMAN. — If you have anything in rebuttal we will hear it.

MR. CHASE. — Our friend on the other side, Mr. Stevens, has told you about the mortgage, and has given you a statement from the records which is substantially correct. I wish to say, however, that we have paid off Mr. Ballou's mortgage, at the end of last year, as we agreed to, \$25,000.

The CHAIRMAN. — You meant at the end of 1882?

A. No, sir; in 1883. The 1st of August, 1883, we paid Mr. Ballou the \$25,000. On the other small mortgages which were made up to make the first payment, and the temporary mortgage was made running five years, with the privilege of extending it another five years, we have made several payments. I cannot tell you exactly, but I know that there was one of \$1,500, and another of \$500, and there were some others. That is one, the third mortgage for \$50,000. That was made up by contributions by several gentlemen, who contributed to make the first payment on the land and take a third mortgage. Of those several have been paid, one of which, of \$1,500, occurs to my mind now, and the other of \$500, and there were several others.

Mr. GOODMAN. — Is the amount stated by Mr. Stevens correct as to the total?

A. Yes, sir.

The CHAIRMAN. — Except what has been paid off?

A. Yes, sir. He made no allusion to what has been paid off. Mr. Stevens has stated that some of the tombs purchased by Mr. Davis were bought at a price as high as \$2,500. This is a mistake. Mr. Davis, the son of that gentleman, is here, and he will make a statement if desired, that none of the tombs were sold for more than \$1,000.

Dr. STEVENS. — Let me ask you a question.

Mr. CHASE. — No, sir; we don't propose to be interrupted. We did not interrupt you.

Dr. STEVENS. — You tried to.

Mr. CHASE. — No, sir. The success of the institution has been spoken of, and the question was asked whether it will be a success. We can only say that this institution was started seventeen years ago, it has been successful in paying its bills, it has had a steady and continuous growth. The last few years its growth has been greater than ever before, so you can judge of its success in the future. Mr. Stevens also stated that it was impossible to have any proper approach to the hall. That is not true. We assured you last night, and we shall be able to satisfy the Building Commissioners, if we are required to do it at all, that we will give three ample approaches to the hall, and without the land we are supposed to be interested in. We shall buy it if we can, and if Dr. Stevens, as he said last night, will sell for five thousand dollars less than it is worth, we will consider that.

The CHAIRMAN. — Where will those exits be?

A. One of them will be where the ladies' entrance is, which is about twenty feet wide, in East Newton street. That will be the main entrance. Another entrance would be through the middle of our building on James street, and we have made a calculation for that. Another entrance would be through a passage-way which we have at present, which is ten feet wide. We could make that passage-way wider if we choose to, as we have an open lot back of the building. We could make that wider if required by the city, and that would give us three ample entrances to the building without encroaching upon the vacant lot which has been referred to. The doctor has spoken about out-moving to the St. James and buying that property to get rid of the taxes. The State of Massachusetts makes a provision in her statutes that educational institutions are free from taxation. They have reckoned this as an educational institution, and have never taxed it at all. The property of the Conservatory has never been taxed, and probably will not be unless we shall have a material change in the law.

Mr. STEVENS. — It has never been taxed since you owned it?

A. I am not speaking of the St. James Hotel property, but of the New England Conservatory, since we have been in existence. It is not taxed now. The Assessors came there and saw and examined the institution thoroughly, through and through, and they reported no taxation. Our friend, Mr. Stone, has stated that

this is a private institution. I would like to say for Mr. Stone's benefit, that the institution is incorporated, it is owned by fifty trustees, and by its by-laws no officer or person, or set of persons, can receive one dollar or any advantage from the establishment, or any gain from any accumulations from the property. It was placed in their hands by a legal document drawn by Mr. Joshua D. Ball, to be holden by them and their successors forever; and no officer of the institution receives any salary except the director. The fifty trustees of the institution receive no salary. They are a board of officers, who have control of the business of the institution, and they choose an executive committee of seven members. The executive committee have the control and management of the general business, but are subject in every respect to the trustees. The trustees have power to elect or turn out the executive committee, and control the business of the Conservatory in every respect, and there is no other body of men who can control it. These seven men are put in to manage the business, but are entirely subject to the board of trustees, who may be called together at any time. Any member of the board of trustees may call a meeting of the trustees, and they can take the business affairs away from the executive committee at any hour, if they choose. So that the institution is not private property in any sense of the word. It is a public institution, so recognized by the laws of Massachusetts, so recognized by the City of Boston, and so recognized by everybody who knows anything about it. Mr. Stone has told us that it is a private institution. I presume that the gentleman, being a musical man, has known institutions larger than the Conservatory, but if he has, we have not heard of them.

The CHAIRMAN.—I understood Mr. Stone to say he did not devote his whole time to teaching music?

A. I understood him so.

Q. Please tell how your Board of Trustees are elected?

A. They were chosen, and were conferred with in the first place as to their willingness to accept the trust, privately.

Q. Who did that?

A. Dr. Tourjée and his assistants, but mostly by himself. They consist of fifty members. Fourteen of those members are prominent officers of various missionary and educational societies. They hold their office by virtue of their offices, and they are *ex-officio* members of the Board of Trustees. There are thirty-six others.

Q. Who made the proviso that these officers shall be members *ex-officio* of the Board of Trustees? Was that in the act of incorporation?

A. It was made in the act transferring the corporation in its original state, which was a joint stock corporation, and was a property held by a few stockholders. They, of course, received a share of the profits and divided it among them. But Dr. Tourjée gave the whole institution to those trustees, and they promised to accept the trust. The transfer was made by Mr. Ball in an elaborate document, which I think would stand the test if you should examine it. The transfer was made and then these trustees which were

nominated and had agreed to serve, were called together and they accepted the trust publicly — that is, in a meeting of the trustees. In this transfer it is stipulated that the trustees shall be elected to serve different periods of time. Of the thirty-six, nine are elected whose terms of office expire in 1884, nine in 1885, nine in 1886, and nine in 1887. When the terms of the first body expire, those remaining, the three bodies of nine, with the fourteen *ex-officio*, elect their successors, and so on from year to year, so that nine of them retire every year, commencing with 1884, and then yearly afterwards nine retire, and the remainder elect their successors.

Q. Who determined in the first place when the first terms should expire?

A. That was arranged by Mr. Ball in consultation with Mr. Tourjée.

Q. Can you tell what year your act of incorporation is to be found in?

A. They commenced business in 1867, but I think the act of incorporation was in 1870. There was an additional act in 1872, giving the corporation power to hold a larger amount of property than they had before.

Dr. STEVENS. — I should like to know when it became a public institution? When did Mr. Tourjée give it to these trustees?

The CHAIRMAN. — Are you willing to answer the question when the transfer was made,— the transfer to the trustees?

A. The writing was made in May, and it was consummated in June. It was arranged in March, and there was a meeting in May and another in June.

Q. Of what year?

A. This year. The transfer was made from the corporation to the trustees since we have been in the new building, of course.

Mr. STEVENS. — Is it inserted in the enabling act passed by the Legislature, in order to change their form of government?

The CHAIRMAN. — I understood that was passed in 1882, giving them additional powers.

Mr. STEVENS. — I understood him to say it was to enable them to hold more property.

Mr. CHASE. — I think you will find the document drawn by Mr. Ball is perfect in all its parts.

Mr. STEVENS. — I have no doubt Mr. Ball would be careful about that.

Mr. CHASE. — There is one other point that Mr. Stone alluded to, and that is the sacredness of the dead, which we respect. There is a difference between this burying-ground and some of the other burying-grounds which have been referred to. Mr. Apollonio told me — and I would like to have him here — that he doubted if there was a man living who knew or was a friend to the people buried there. He told me further that in thirty years he has charge of that place he now occupies, there had been but one request to move a body from that burying-ground.

The CHAIRMAN. — You made that statement yesterday, and the objection was raised that Mr. Apollonio should be called. The committee can consult him or call him and get any facts he has.

Mr. CHASE. — You do not object to that statement?

The CHAIRMAN. — Mr. Whitmore objected to your statement very strongly, and said if you desired to call him you can do so, and Mr. Goodman confirms me in my recollection.

Mr. CHASE. — I know he made the objection, but I thought he waived it.

Mr. GOODMAN. — I think you are mistaken about that.

Mr. CHASE. — We did not understand that we were to come here with counsel. We only came here for a committee hearing, without summoning witnesses or bringing counsel.

Mr. GOODMAN. — You have not brought any witnesses?

A. No, sir; we have not brought witnesses. We brought parties to make statements, as they have on the other side. I think it has been a fair chance on both sides. We could have appeared by counsel. Mr. Stevens is a lawyer, but we do not object to that, however.

Dr. STEVENS. — If it be true that not one of the friends of the dead there are living, it makes a still stronger case that none of them are living to object.

Mr. CHASE. — We only mention that as any other case, to show that such burying-grounds have been removed, that the interments have been changed and the remains removed, and the bodies changed from some tomb more than once, so that the city has not regarded the sacredness of this ground as they did regard the sacredness of the ground where friends of the living are buried and monuments are erected to their memories. They view it as the State and other cities have viewed such kinds of burial-places, I presume, from the fact that they have acted in the way they have in selling a part of the ground and removing the bodies. They have acted upon that principle. As Mr. Apollonio said, after a tomb had been filled for ten years, then the undertakers were allowed to remove all the bodies from that tomb and fill it with bodies again, which was done. In other cases the remains have been removed to other burial-grounds provided by the city. Now, if we build that hall we do not propose to dig up that ground at all. We propose to let it remain exactly as it is. We do not propose to put in a cellar under the building. We propose to build no foundation-wall. It is quite probable we may use the foundation-wall now on the two sides; and the remains were removed according to the direction of the City Government, when the land was sold to Mr. Davis. We shall, perhaps, place our foundation on the two sides of these other walls which are not built where the bones were taken out, if they were in there. But the remainder we do not propose to dig. We propose to leave that as they are in hundreds of places in the Old World; there the remains are under churches, until they shall be called up. There have been no interments there for fifty years, and there are no offensive odors from the remains there, as Mr. Stevens said. If there were offensive odors, they would come from the tombs. But from the graves, which have been there for fifty years, nobody would expect any difficulty from them. Nobody would object to their remaining there the same as they remain under churches and many other places in the Old World.

If in digging our foundation-wall we come to any remains of the dead, or bones, or anything of that kind, we propose and should expect to do what is required by the city if this transfer is made, and give them a decent burial, and not dump them down, — I will not say as they have been done before, — but we will give them a decent burial. We should expect the city to require that of us, and should comply with the requisition.

The CHAIRMAN. — Do you consider those walls suitable to put the walls of your new building upon?

A. I cannot say that they are; I do not know that they are. I think they are laid four feet and a half. If they are laid on the solid ground that would be sufficient. I think most of the remains were taken out at the time the trenches were dug, and if we removed those and laid a deeper foundation, we should not find a great many remains.

Q. I suppose, while building, your intention is to put an iron fence upon it?

A. Yes, sir; but it was stipulated by the city that it should be a certain depth, and the wall should be four feet deep.

Q. But the city, I suppose, when they made that stipulation, never contemplated that those walls should be used in the erection of a large, heavy hall or building?

A. No, I do not think they did. I do not think they would be applicable for the wall.

Q. But you would have to dig to enlarge those walls?

A. Well, a four-foot wall is a pretty good wall. At any rate, if any remains are found there, they would have decent burial, as the city would require, and we should comply. There is one other idea that has been advanced and reiterated, over and over again; and that is, that we have asked the city to give us this land, and give it to us for \$1. We never made any such request. We put in a petition asking the city to convey to us this tract of land. All we asked and expected, and all we desire now, is that you, in your wisdom, shall look this over carefully, and put a fair estimate upon the land, and so report to the City Council. We want you to take into consideration the price that the land is worth; the situation of this land; that it is away from any street; that land on the street has been sold for a dollar; that land in the immediate vicinity has been sold for a dollar; that land all round there is not worth any more to-day than it was in 1866; and Dr. Stevens will bear me testimony in that, I believe. I have looked over the Assessors' books to a very small extent, this afternoon, and intended to have given you quite a large number of figures, comparing the valuations in 1867 and 1868, with those of this year; but I got restricted as to time, and only found a few. In 1867, Dr. Stevens' lot, 1,750 feet, was valued at \$4,000; in 1868 it was valued at \$4,000; and in 1883, it is valued at \$4,400. We suppose the increase there is on account of the increased extent of his land, as he purchased two pieces in addition; so that, I think, makes the difference in that price. The Davis lot, where the building is, 2,270 feet, in 1867 was valued at \$6,000; in 1868, at \$7,000; and in

1883, at \$5,000. The Conservatory land was valued in 1867 at \$45,000.

The CHAIRMAN. — About how much is that a foot?

A. There are 28,500 feet, it isn't exactly an even sum. In 1868 it was valued at \$50,000; in 1883 it is valued at \$42,720, which is the same as last year.

Q. You were taking the figures at a time when real estate was at its height, before the panic of 1873, and you come down to 1883. Have you figures along in 1875 or 1876?

A. No, sir. I took these because we brought in two documents last night, showing that in 1866 and 1867 land was sold at a certain price. I took the ground then that there has been no essential decline in the price since that time. I took those figures to establish the fact that if land was sold there to-day, the Assessors' books do not show any reason for any increased valuation.

Q. You must take into consideration that your dollar is worth a great deal more now than it was in those days, 1868.

A. What was the value in 1868?

Q. It was the highest value the dollar ever had.

A GENTLEMAN. — It was about thirty-three cents.

Mr. CHASE. — I think about that time gold had got pretty well down. I had quite a number of figures here which I had intended to have given.

The CHAIRMAN. — Will the Treasurer of the Conservatory of Music submit to this committee a statement of your financial condition?

A. I think they would, if they could have a statement from the committee as to their willingness to convey the land at any price, regardless of what the price would be. If we could know from this committee that they would be willing to convey the land at any price, then I think they would be willing to give the statement.

Q. Would your Board of Trustees be willing to authorize your treasurer to present to this committee, confidentially, a statement of your financial condition without any further conditions?

A. I don't think they would. I don't think they would because I don't think they would feel called upon any more than any business man in the city would feel called upon to do it. If we understand from you that you are willing to convey this land at the price it is worth then we could negotiate with you. Now, we are only waiting for your reply. But whatever you fix the price at, if we accept it, we will pay the price, and that is all the city needs to know, it seems to me. All we ask of you is to fix the price. We don't ask you to give the land; we don't ask you to sell it for one dollar or any other sum. We do ask you to take into consideration the fact that it is purely an educational institution, to be perpetuated forever, and that Massachusetts and the city of Boston have always recognized, and they now recognize, and take an interest in every such institution, and are always inclined, so far as we know, to deal liberally with them. We do not ask you to give us this land, or sell it for one dollar, or for a hundred dollars, or any other sum; but we ask you to convey the land to us for what it is worth in cash to-day.

Mr. STEVENS. — I should like to inquire through you, Mr. Chairman, if Mr. Chase has not attempted to show how much land is worth more this year than last?

Mr. CHASE. — No, sir, I did not.

Mr. STEVENS. — Mr. Chase has testified against himself, and shown that it was worth more than the year before.

Dr. STEVENS. — The statement was made to show that Mr. Davis paid as high as \$2,500 for some of those tombs, and he was my authority for that, for he told me so when I was trying to buy some land from him; and he told me he had paid as high as \$2,500.

Dr. TOURJÉE. — Mr. Davis is here.

Dr. STEVENS. — It was not this Mr. Davis.

STATEMENT OF MR. STONE. — *Resumed.*

Mr. STONE. — I desire to reply, Mr. Chairman, to a few words that have been said. I desire to acknowledge the good done by the Conservatory. There may be two definitions of the word public, but I am sure that the Conservatory is not a public institution in the sense that it is free to the whole of the community without money and without price. Furthermore, the Conservatory comes to the city asking a favor, and declines to exhibit its financial condition to the representatives of the city. I think that certainly indicates that there are degrees of publicity and privacy. Furthermore, I should not wish any more than the first speaker in rebuttal that the interests of the living should be sacrificed to those of the dead. I should desire that the graveyards be made open to the public at all times, and I am sure that they will be properly treated. If the persons who have been buried in this graveyard are those who have no friends or representatives living, it all the more devolves upon us to be scrupulous in the use we make of them.

I should like to correct a misapprehension as to something I said, which was probably a misstatement. I think that in all probability I have, in times gone by, known the desires and intentions of the New England Conservatory of music. What I intended to say, and should have said but for my haste, was that it was only until to-night that I knew of a hearing upon this subject, which had any general bearing on the question of interfering with the burial-grounds. That is what was new to me. I presume I have heard of what they desired before. The statement about reading the newspapers applied to the newspapers of the past few weeks. The suggestion that I had a rival institution of my own is very funny, but it is uncalled for. The only institution of my own is a classical school for preparing boys for college, and I have no connection with any musical institution whatever.

Another gentleman said that if I had the interest in music which I said I did, I should be better posted. Of course the gentleman is at liberty to question any statement he pleases, and I can easily direct him to where the answer can be found. If the agents of his paper would devote one-twentieth part of the energy to finding out what my musical interests and standing are, which

they have devoted in pestering me for advertisements for the past five years, I am sure they would not have the slightest difficulty in finding it out.

Mr. WAUGH. — I should like to rise to answer Mr. Stone on that, not that I care to say anything about advertisements at all. I did not mean to slur Mr. Stone at all. He intended to convey the idea that he had an interest in music, and I doubted it. I know Mr. Stone to be an honest man, and with the best intentions; and when I say that I think I have explained what I said.

Mr. STONE. — I regret that I misunderstood Mr. Waugh

The CHAIRMAN. — Is there any further evidence that anybody wishes to present to this committee?

STATEMENT OF GEORGE H. DAVIS.

Mr. CHAIRMAN: — Perhaps it may not be out of place to correct a statement that has been made here. I had considerable to do with the purchase which my father made of those tombs which have been referred to. I know from personal knowledge that in the purchase of those 19 tombs that my father bought, which have been referred to here to-night, no one of them cost him over \$1,000. I have not the list here; but it is with the papers in connection with this subject, which I have all laid one side by themselves from my father's papers; a list of all the tombs, who they belonged to, of whom they were purchased, and all the expense of removals, in connection with the whole affair, from beginning to end. I have seen that list within a week, and been over it; and that list says emphatically that no tombs there cost him over \$1,000. I saw many of the tomb-owners myself, was in conference with them, talked about prices, and know that such a price was never mentioned.

Then further than that, in regard to the passage-way and what there was in regard to that in connection with the land. The purchase of the tombs began before the factory was burned. A conference was then had with the committee on public lands of the city in connection with the plan which my father had of tearing down his factory and disposing of the land for dwelling-house purposes, he having purchased another site and the plans being drawn for another factory building in another location in the city. He was then purchasing the tombs with reference to having rear entrances to the houses. When the factory was burned that transaction went on faster and faster, and the city gave him a deed of the land upon his paying for it. The land was divided into house-lots, and offered for sale in house-lots, when Mr. Ballou stepped forward and bought all except nineteen or twenty feet, which now stand vacant, between the Conservatory building and father's house. The passage-way was designed by the city and was done at my father's request, and was a part and parcel of the whole plan, and was a stipulation put in there by the city at my father's request, for it was his purpose to have it there, that the parties who bought the house-lots might have rear entrances to the houses.

This closed the public hearing.

CITY OF



BOSTON.

ORDINANCE

RELATING TO

SALARY OF INSPECTOR OF VINEGAR.

In the Year One Thousand Eight Hundred and Eighty-three.

AN ORDINANCE TO AMEND CHAPTER SIX OF THE REVISED
ORDINANCES.

Be it ordained by the City Council of Boston, as follows:—

SECTION 1. Chapter six of the Revised Ordinances is hereby amended in Section one by inserting after line thirty-one of page eighteen the following words:—

"The Inspector of Vinegar, one thousand two hundred dollars."

IN COMMON COUNCIL, Oct. 18, 1883.

Read, and ordered to be printed.

W. P. GREGG,
Clerk of the Common Council.

CITY OF



BOSTON.

REPORT

ON

ORDER FOR LOAN FOR MUDDY- RIVER IMPROVEMENT.

IN COMMON COUNCIL, October 18, 1883.

The Special Committee of the Common Council, to whom was referred the order to amend the order of December 24, 1881, providing for a loan for the Muddy-river Improvement, by striking out therefrom the words "in assessed valuation," having carefully considered the subject, and believing that the land for the proposed improvement can be bought by the Board of Park Commissioners, if they have the right to exercise their discretion in the matter, for a less sum than it would cost if they should take it under the Park Act, respectfully recommend that in their opinion the order ought to pass.

Your committee desire to add, for the information of the Council, that the \$200,000 already appropriated for the improvement will not be sufficient for the purchase of all the land required; the assessed value of which is about \$325,000, and the estimated cost about \$400,000. It will therefore be seen that a further appropriation of \$200,000 will at some time be necessary.

JAMES G. FREEMAN.

EDWARD FINNERTY.

The undersigned, though agreeing to the preceding statement of facts, is of the opinion that no step should be taken until the City Council is willing to provide all the necessary funds. As the matter stands, the commissioners will hardly *take* any lands under the act, when the appropriation is only

one-half of the assessed value. He respectfully suggests that the following proviso should be added if the words "in assessed value" be stricken out:—

"*Provided*, That the Park Commissioners make no further purchases of land under this order as amended, until the City Council shall have appropriated the further sum of two hundred thousand dollars for said Muddy-river Improvement."

WILLIAM H. WHITMORE.

IN COMMON COUNCIL, Oct. 18, 1883.

Ordered to be printed, and assigned to the next meeting, at 8 o'clock P.M.

W. P. GREGG,
Clerk of the Common Council.

[DOCUMENT 151 — 1883.]

CITY OF



BOSTON.

AN ORDER

CONCERNING

A THOROUGH REFORM OF THE CIVIL SERVICE.

IN COMMON COUNCIL, October 18, 1883.

Ordered, That the Mayor be directed to petition the next Legislature to pass such laws respecting the City of Boston as will effect a thorough reform of the civil service thereof, so that fitness, and not favor, shall regulate appointments to office.

Provided, That such laws shall not be made to apply to officers now elected by the City Council, nor those appointed by the Mayor and confirmed by the City Council, nor to persons having the custody of money, for whose fidelity an officer is under official bond.

IN COMMON COUNCIL, October 18, 1883.

Read, assigned to the next meeting, at 8 o'clock P.M., and five thousand copies ordered to be printed.

W. P. GREGG, •

Clerk of the Common Council.

CITY OF



BOSTON.

REQUEST

FOR

SPECIAL APPROPRIATION

FOR

SEWERS.

IN BOARD OF ALDERMEN, Oct. 29, 1883.

The Committee on Sewers, to whom have been referred the following reports and petition, respectfully represent that a special appropriation of \$50,000 will be required to continue and complete the work herein described: —

MEDFORD AND CHELSEA STREETS OUTLET, CHARLESTOWN.

CORPORATION COUNSEL'S OFFICE, 2 Pemberton square,
BOSTON, Dec. 28, 1882.

To the Honorable City Council: —

Upon the order requesting me to report in what way the City Council should proceed, in order to have a sluiceway cut under the Boston & Lowell Railroad, at the foot of Elm street, Ward 3, I have to report that the officers of the railroad company, upon consultation with them, were of the opinion that their directors would assent to any reasonable plan that might be proposed by the city.

The first thing, therefore, is to have a plan made that will accomplish what is sought, and then, with the consent of the railroad company, I see no reason why the city may not proceed to do the work.

Your obedient servant,

E. P. NETTLETON

Corporation Counsel.

CITY OF BOSTON.

IN BOARD OF ALDERMEN, Jan. 8, 1883.

Ordered, That the communication of the Corporation Counsel in regard to the sluiceway under the Boston & Lowell Railroad, at the

foot of Elm street, Charlestown District, be taken from the files of last year and referred to the Joint Committee on Health, and that they be requested to report upon the expediency of constructing said sluiceway, and the cost thereof.

Passed in Common Council.

Came up for concurrence. Read and concurred.

Approved by the Mayor Jan. 9, 1883.

A true copy.

Attest:

JOHN T. PRIEST,

Ass't City Clerk.

CITY OF BOSTON.

IN COMMON COUNCIL, Oct. 4, 1883.

The Joint Committee on Health, to whom was referred the order of Jan. 8, that the communication of the Corporation Counsel in regard to the sluiceway under the Boston & Lowell Railroad, at the foot of Elm street, Charlestown District, be taken from the files of last year and referred to the Joint Committee on Health, and that they be requested to report, have attended to the duty assigned them, and submit the accompanying report, with recommendation:—

The committee have considered the expediency and cost of constructing a sluiceway under the Boston & Lowell Railroad, at the foot of Elm street, in Charlestown, in accordance with the order of said Council, approved Jan. 9, 1883.

Your committee find that a sluiceway can be constructed for the sum of \$1,200, as estimated by the City Engineer, but are of the opinion that it would not be expedient to construct said sluiceway as a remedy for the nuisance complained of in the dock at the foot of Elm street, and in the channel running parallel with Medford street. It is not believed by your committee (and this opinion is concurred in by the City Engineer) that the sluiceway would cause a sufficient circulation of the tide-water to obviate the nuisance, and it might cause much damage to the docks and channel by allowing loose sand and other materials from the filling on the Mystic-river flats to be carried in by the current.

The proper remedy for the nuisance complained of is, in the opinion of your committee, to construct an intercepting sewer in Medford and Chelsea streets, through which the discharges from the Elm-street and Moulton-street sewers (the only sewers having outlets into this channel) will reach the main channel at Chelsea bridge.

A portion of this work is already in progress, under the direction of the Superintendent of Sewers, and the work, as far as Moulton street, will soon be completed, and the remaining portion of the intercepting sewer, between Moulton street and Elm street, can be constructed this season, and your committee would recommend that the Superintendent of Sewers be directed to complete its construction the present season.

For the Committee,

FELIX A. STRANGE.

IN COMMON COUNCIL, Oct. 4, 1883.

Accepted. Sent up for concurrence.

GODFREY MORSE,

President.

IN BOARD OF ALDERMEN, Oct. 8, 1883.

Concurred.

HUGH O'BRIEN,

Chairman.

SEWER IN WEST FIRST STREET AND DORCHESTER AVENUE,
SOUTH BOSTON,

CITY OF BOSTON.

IN COMMON COUNCIL, Feb. 8, 1883.

Ordered, That the Joint Committee on Health consider and report what measures, if any, should be taken to abate the nuisance caused by the discharge of sewage from the sewer on West First street, at the foot of D street, South Boston.

IN COMMON COUNCIL, Feb. 8, 1883.

Referred to the Committee on Health.

JAS. J. FLYNN,
President.

CITY OF BOSTON.

IN COMMON COUNCIL, June 21, 1883.

The Joint Committee on Health, to whom was referred the order to consider and report what measures should be taken to abate the nuisance caused by the discharge of sewage from the sewer on West First street, foot of D street, South Boston, have fully considered the subject, and recommend its reference to the Committee on Sewers.

For the Committee,

FELIX A. STRANGE,
Chairman.

IN COMMON COUNCIL, June 21, 1883.

Accepted. Sent up.

GODFREY MORSE,
President.

IN BOARD OF ALDERMEN, June 25, 1883.

Concurred.

HUGH O'BRIEN,
Chairman.

SEWER FOR DISTRICT NEAR MT. BOWDOIN, DORCHESTER.

BOSTON, Oct. 12, 1883.

To the Honorable the Mayor and Aldermen of the City of Boston:—

The undersigned, citizens and residents of Ward 24, respectfully petition your honorable body that a special appropriation of \$25,000 (that being the amount estimated as necessary by the Superintendent of Sewers) be made to complete the drainage already commenced of that portion of the above ward from near the junction of School and Washington streets, along Washington, Bowdoin, and Westville streets, and across to Park street, and in that vicinity, as may be proper.

Your petitioners respectfully represent that, owing to the springy nature of the soil in much of the territory above-mentioned, during the spring, fall, and winter months especially, many cellars are flooded, and cesspools are in many instances so flooded by water from the ground as to make them of little use for purposes of drainage; while the requirements of the Board of Health, intended to improve our con-

dition, entail upon us heavy expenses, and afford us but temporary relief. New houses have been erected upon a portion of this territory which have no drainage, except such as may be imperfectly obtained by cesspools, which are now required to be constructed in a very expensive manner.

EDW. P. WHITCOMB,	F. H. TALCOTT,	R. GLEASON,
Mrs. S. A. NEEDHAM,	JOSEPH S. HYDE,	WILLIAM H. COOPER,
J. FOSTER HEWINS,	JOHN B. ANDERSON,	O. G. ROGERS, M.D.,
MARY G. LEWIS,	GEO. H. PITMAN,	GEO. L. PITMAN,
	A. A. CHITTENDEN,	WILLIAM G. DOTEN.

The Board of Health is of the opinion that the granting of the foregoing petition will conduce to the health and welfare of the people on the line of the proposed sewer; the drainage of the houses now being such as to threaten sickness in this vicinity, and to call for the active interference of this Board.

For the Board of Health,

By GEO. F. BABBITT,

Chairman pro tem.

BOSTON, Oct. 12, 1883.

IN BOARD OF ALDERMEN, Oct. 15, 1883.

Referred to Committee on Sewers.

FREDERICK E. GOODRICH,

City Clerk.

Your committee have carefully considered the matters herein presented, and will here briefly define their own views, and report what action has already been taken by the Sewer Department.

The construction of the intercepting sewer in Chelsea and Medford streets, Charlestown, has been long contemplated in the Sewer Department, but has only been entered upon during the present year. It will afford the only efficient remedy for a nuisance which has afflicted the citizens of Charlestown for many years, and which has been like, only less offensive than, the Roxbury canal.

The sewer outlets at D and B streets, on the northerly side of West First street, have long been the source of serious offence to the immediate neighborhood, and now, when the contemplated improvement of the flats between West First street and the established harbor line is partly completed, the evil has been so aggravated as to endanger the public health.

In the process of filling the flats, the B-street outlet has been entirely closed, as that at D street soon will be also.

To extend these outlets across the filled flats in a northerly direction would entail a very great expense, and would fail to secure a connection of the present mains with the system of "improved sewerage."

It is clearly imperative that some remedy should be provided immediately, and your committee are of the opinion that the construction of a sewer to take the sewage from the D and B streets mains and discharge it into the intercepting sewer in Dorchester avenue, and to carry the storm-water to the channel at Federal-street bridge, would remove all cause for complaint resulting from defective drainage in the districts now connected with the D and B streets sewers.

The above-named scheme of sewerage in Dorchester is intended to relieve a considerable number of families from the dangers incident to poor drainage, which, in the judgment of the Board of Health, already threaten them.

The construction of the outlet in Geneva-avenue extension was begun the present season; but the work has been suspended for want of funds.

Of the appropriation for sewers for the current year but about \$73,000 remained unexpended Oct. 1, the whole of which will undoubtedly be required to meet the ordinary expenses of the department for the remainder of the financial year.

DISBURSEMENTS MADE FROM MAY 1 TO OCT. 1.

Salaries and labor	.	.	.	.	.	\$72,192 75
Contracts	.	.	.	.	.	36,925 17
Drain-pipe	.	.	.	.	.	23,957 72
Brick, sand, and cement	.	.	.	.	.	18,948 11
Catch-basin stone	.	.	.	.	.	2,299 00
Iron castings	.	.	.	.	.	3,393 73
Lumber	.	.	.	.	.	3,826 35
Tools and hardware	.	.	.	.	.	4,797 19
Horses owned by department — care, etc.	.	.	.	.	.	1,355 92
Teaming — hired	.	.	.	.	.	5,199 54
Miscellaneous	.	.	.	.	.	3,900 15
						\$176,795 63
Total credits May 1	.	.	.	.	.	250,000 00
Balance unexpended Oct. 1	.	.	.	.	.	\$73,204 37

For the accomplishment of the work herein described your committee would recommend the special appropriation before named.

Respectfully submitted,

BENJ. F. ANTHONY,

Chairman.

CITY OF



BOSTON.

REQUEST

FOR AN

ADDITIONAL APPROPRIATION

FOR

ADVERTISING.

OFFICE OF THE CITY AUDITOR, Oct. 27, 1883.

The City Auditor respectfully represents that the appropriation for Advertising for the financial year 1883-84 was \$1,200 00

The expenses have been as follows :—

For Advertising	\$1,082 59	
Newspapers	39 42	
		1,122 01
Balance, October 1, 1883		<u>\$77 99.</u>

There are approved bills in this office amounting to \$243.02, and the bills for the balance of the year to be provided for, requiring, it is estimated, an additional appropriation of \$600.

JAMES H. DODGE,
City Auditor.

CITY OF



BOSTON.

REPORT

OF THE

COMMITTEE ON STREETS,

UPON THE

PROPOSED EXTENSION OF COLUMBUS AVENUE, STAN-
FORD STREET AND TUFTS STREET.

MAJORITY REPORT.

IN BOARD OF ALDERMEN, October 29, 1883.

The Joint Standing Committee on Streets, who have had under consideration during the present year various projects for widening and extending streets, are prepared to recommend three schemes at the present time, which they consider most desirable for the city to adopt and carry out, namely : —

1. The extension of Columbus avenue to Tremont street, at an estimated cost of \$290,000.

2. The extension of Staniford street to Merrimac street, at an estimated expense of \$185,000.

3. The extension of Tufts street to Kingston street, at an estimated expense of \$162,000.

Your committee do not deem it necessary to present a lengthy statement concerning these projects. There can be but one opinion as to their desirability, and it is not probable that they can ever be carried out at less cost than at present. The estimates have been carefully prepared by the Board of Street Commissioners, who give it as their opinion that forty per cent. of the cost of the improvements can be returned to the city in the form of betterments.

The extension of Columbus avenue is nothing more than the completion of a work at present unfinished, and which the city must, sooner or later undertake. The extension of Staniford street is a much-needed improvement, to accommodate travel to the northern depots, and relieve Causeway and other streets in that section, at present in an overcrowded condition. Inasmuch as these street improvements are for the future advantage of our city the committee are in favor of meeting the expense incurred in this direction by a loan for the sum required, instead of placing the whole burden immediately upon the tax-payers in a yearly tax levy.

Your committee therefore, recommend that the City Council adopt the three schemes enumerated above, and that a loan to the amount of \$650,000 be negotiated for the purpose of carrying them out.

For the majority of the Committee,

BENJ. F. ANTHONY.

MINORITY REPORT.

The undersigned, members of the Committee on Streets, dissent from the recommendations of the majority, and desire to state their objections as follows :—

The financial condition of our city will not warrant the large expenditure called for by the improvements proposed. Our tax-payers are justly complaining of the high rate of taxation, and for this reason alone all will agree that we should exercise the greatest caution in incurring additional expense ; and no improvements should be undertaken until it is clearly shown that the actual needs of the city demand them. It may be claimed that these improvements will add materially to the taxable value of adjoining property, and also yield an income to the city in the form of betterments. Such may, in all probability, be true ; but the advantages to be gained in this direction will not greatly lessen the burden which the tax-payers will thereby be called upon to bear. It is unwise at this late period in our municipal year to bind the city to the large expenditure of money which it is proposed to borrow. The principle of borrowing money to pay for public improvements we consider, in a general way, to be misleading and unfair, — misleading because the obligations of the city are thereby placed in what may seem a fictitious light ; for they do not appear in the tax levy, and

the citizens are liable to be deceived as to their amount. It is unfair, because in this manner we are incurring expenses, and calling upon our successors to share in their payment, when they have no voice upon the question as to whether the scheme is or is not expedient and proper. The "pay as you go" policy, as it is called, we deem the true and business-like method of proceeding, and the soundness of the rule of living within our means can as well be exemplified by municipalities as by individuals. If we are determined to have these improvements, or, rather, if the necessities of the case demand them, let us meet the expense in the annual appropriation bill, where it can be distinctly seen and appreciated by the tax-payers.

As regards the proposed extension of Columbus avenue there is a diversity of opinion relative to the course it should take. The report of the majority does not favor a scheme which has the support or approval of the Street Commissioners, for that Board is not committed to any plan at present, their estimate having been furnished at the request of the City Council. On this account it would seem desirable to have the matter more thoroughly investigated, in order to determine which plan is the best to adopt.

It will be seen that Tufts street is to be extended, as the majority recommend, at a width of forty feet; but it is, in our opinion, a short-sighted and half-way policy, that proposes to lay out a street of that width in an important business section of our city. It is true that a wider street would occasion a larger expenditure of money; but if the improvement commends itself to the City Council, and is actually required, it should be made with the future needs of the city in view, and carried out upon such a scale as will make the advantage undoubted. Among the arguments advanced in support of this improvement it is stated that a very obnoxious locality will thereby be cleared out; and it is also claimed that, aside from the financial advantage to be gained in the increased valuation of the surrounding property, both the sanitary and moral character of the neighborhood will be greatly improved if this extension is carried out. While the undersigned fully appreciate the force of these arguments, they do not lose sight of the fact that the city has been called upon to coöperate in carrying forward the extensive improvements in that section of the city in which the New York & New England Railroad and other corporations are engaged. If the city is to expend a considerable sum in this direction, the Tufts-street extension may as well be included in a comprehensive scheme, and can therefore afford to wait until it has been decided what improvements the city is to undertake.

The extension of Staniford street, really the widening of Lyman street, has been presented to the committee in a variety of ways, and the majority have seen fit to recommend the most expensive plan. It is true that the necessity exists for better facilities to accommodate the large and increasing amount of travel in that part of the city, to and from the northern depots; but it has not, we submit, been clearly demonstrated in what way these much-desired facilities shall be obtained. The other projects that have been brought forward, with the same end in view, have not, we believe, been afforded the attention of the City Council to the extent they deserve.

The undersigned, while they do not deny that these several improvements are desirable, are still of the opinion that each project should be considered upon its merits, reported upon separately, and voted upon in the same way. We are of the opinion that the report of the majority is ill-advised, and that it fails to do justice to the subjects discussed, inasmuch as there are better methods of carrying out the improvements than those recommended. We are, as before stated, opposed to borrowing money to pay for improvements of this character, and upon these considerations we respectfully recommend that the several matters be referred to the next City Council.

JOHN W. FRASER,
WILLIAM A. THOMES.

IN BOARD OF ALDERMEN, Oct. 29, 1883.

Specially assigned to the next meeting of the Board, and ordered to be printed.

Attest :

FREDERICK E. GOODRICH,
City Clerk.

CITY OF



BOSTON.

METROPOLITAN RAILROAD.

NINETIETH LOCATION.

IN BOARD OF ALDERMEN, Oct. 29, 1883.

The Committee on Railroads, to whom was recommitted the petition of the Metropolitan Railroad Company for leave to lay tracks in Huntington avenue and Longwood avenue, respectfully report the following order of location.

For the Committee,

CHAS. V. WHITTEN,

Chairman.

Ordered, That, in addition to the rights heretofore granted to the Metropolitan Railroad Company to lay down tracks in several of the streets of Boston, said company shall have the right to lay down a double track on Huntington avenue, from West Chester park to the junction of Tremont and Francis streets, and to connect said tracks with tracks already laid in Huntington avenue and Tremont st.

Said company shall also have the right to lay down a double track in Longwood ave., from Huntington avenue to the boundary line between the city of Boston and town of Brookline, and to connect the same with the tracks on Huntington avenue.

The tracks located by this order are shown by red lines on a plan made by Arthur Hodges, Civil Engineer, dated October 13, 1883, and deposited in the office of the Superintendent of Streets.

The right to lay down the tracks located by this order is upon condition that the whole work of laying down the same, the form of rail to be used, and the kind and quality of material used in paving said tracks, shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them.

Also, upon condition that the said Metropolitan Railroad Company shall accept this order of location, and shall agree, in writing, to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of its passage; otherwise it shall be null and void.

Passed.

FREDERICK E. GOODRICH,

City Clerk.

CITY OF



BOSTON.

MIDDLESEX RAILROAD.

TWENTY-NINTH LOCATION.

IN BOARD OF ALDERMEN, Oct. 29, 1883.

The Committee on Railroads, to whom was recommitted the petition of the Middlesex Railroad Company for a change of location on Beverly street, Warren bridge, Warren avenue, and City square, having considered the subject, respectfully recommend the passage of the following order.

For the Committee,

CHAS. V. WHITTEN,

Chairman.

Ordered, That, in addition to the rights heretofore granted the Middlesex Railroad Company to lay down tracks in several of the streets of Boston, said company shall have the right to lay down a double track on Beverly street, Warren avenue, Warren bridge, and City square, connecting with tracks already laid in Beverly street and City square; said tracks being shown by red lines on a plan made by Arthur Hodges, Civil Engineer, dated September 27, 1883, and deposited in the office of the Superintendent of Streets.

The right to lay down the tracks located by this order is upon condition that the whole work of laying down the same, the form of rail to be used, and the kind and quality of material used in paving said tracks, shall be under the

direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them ; also, upon condition that the said Middlesex Railroad Company shall accept this order of location, and agree, in writing, to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of its passage ; otherwise it shall be null and void.

Passed.

FREDERICK E. GOODRICH,
City Clerk.

CITY OF



BOSTON.

AUDITOR'S MONTHLY EXHIBIT.

GENERAL AND SPECIAL APPROPRIATIONS

FOR 1883-84.

OFFICE OF THE CITY AUDITOR, }
CITY HALL, November 2, 1883. }

TO THE HONORABLE CITY COUNCIL:—

GENTLEMEN, — The undersigned, in compliance with Chap. 14, Section 3, Revised Ordinances, herewith presents an exhibit of the General and Special Appropriations for the present financial year of 1883-84, as shown in the books in his office, November 1, 1883, including the November draft, — being seven months' payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1882-83, the amount drawn November 1, the total expenditures, and the balance of each appropriation unexpended at that date.

Respectfully submitted,

JAMES H. DODGE,
City Auditor.

APPROPRIATIONS.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Nov. Draft, including Treasurer's payments in October.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including November Draft.
Advertising			\$1,200 00	\$1,200 00	\$77 28	\$1,199 29	71	
Architect's Department			13,000 00	13,000 00	1,052 35	8,727 42	\$4,272 58	
Armories			24,000 00	24,000 00	585 87	13,946 14	10,053 86	
Assessors' Department			105,000 00	105,000 00	7,514 57	77,256 32	27,743 68	
Auditor's Department			17,500 00	17,500 00	1,390 50	9,566 76	7,933 24	
Board of Health, etc., viz:			62,000 00	62,000 00	4,881 43	34,876 98	27,123 02	
Evergreen Cemetery		\$350 75	1,500 00	1,890 27	198 26	1,548 63	341 64	
Public Baths			15,000 00	15,000 00	2,778 87	12,293 02	2,606 98	
Quarantine Department			16,400 00	16,400 00	937 49	14,776 25	1,623 75	
Store-house, Gallop's Island ¹			10,000 00	10,000 00	6,494 80	7,494 80	2,505 20	
Boston Harbor			4,500 00	4,500 00	152 60	1,106 76	3,393 24	
Bridges:—								
Bridges			67,000 00	67,000 00	7,368 37	43,096 06	23,903 94	
New Bridge to Cambridge	1,000 00			1,000 00			1,000 00	
Warren Bridge	99,710 55			99,710 55	49,834 27	93,889 23	5,821 32	\$94,178 68
Burnt District	82,348 53			82,348 53			82,348 53	6,363,828 12
Cedar Grove Cemetery	504 52	5,748 42	5,000 00	11,252 94	1,697 89	9,429 51	1,823 43	
Chestnut Hill Driveway			3,000 00	3,000 00	265 55	1,826 54	1,173 46	
City Debt			768,278 00	768,278 00			768,278 00	
City Loans, Redemption of, Received from Commission- ers		570,000 00		570,000 00		570,000 00		
Revenue \$203,000 00								
Sinking Funds \$367,000 00								
Redemption of City Debt								
Proper					73,000 00			
Redemption of Mystic Water								
Debt								
Cost of Redemption of ma- tured bonds								
City Hospital			154,500 00	154,500 00	10,298 58	84,139 22	70,360 78	
Carried forward	\$183,603 12	\$576,099 17	\$1,267,878 00	\$2,027,580 29	\$168,528 68	\$985,272 93	\$1,042,307 36	\$6,458,006 80

¹ Transferred from Reserved Fund, \$10,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Nov. Draft, including Treasurer's payments in October.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including November Draft.
<i>Brought forward</i>								\$6,458,006 80
City Registrar's Department	\$183,603 12	\$576,099 17	\$1,267,878 00	\$2,027,580 29	\$168,528 68	\$985,272 93	\$1,042,307 36	
Collector's Department			10,900 00	10,900 00	659 63	4,766 38	6,183 62	
Common and Public Grounds:			52,900 00	52,900 00	5,258 97	29,702 93	23,197 07	
Common, etc.			63,550 00	63,550 00	4,897 40	53,347 32	10,202 68	
Current expenses								
Concrete walks								
Plank walks								
Flagstaffs, Common, Public Gar- den, and Washington Park								
Play Grounds								
Curb-stones, Copley Square ¹			5,000 00	5,000 00			5,000 00	
Improvement of Copley Square			5,000 00	5,000 00				
Public Garden Pond	9,541 35			9,541 35			7,412 60	
Contingent Funds, viz.:								
Joint Committees			15,000 00	15,000 00	2,924 62	14,264 97	735 03	
Mayor			1,500 00	1,500 00	33 25	385 10	1,114 90	
Board of Aldermen			6,600 00	6,600 00	509 25	3,700 61	2,899 39	
Common Council			5,000 00	5,000 00	462 10	3,026 47	1,973 53	
County of Suffolk			360,000 00	360,000 00	25,984 18	201,313 72	158,686 28	
Damages by dogs					347 00	375 50	(\$375.50 provided for.)	
Deeds, Real Estate Advertising, etc.	5,485 33	6,775 87		12,261 20	440 66	6,876 59	5,384 61	
East Boston Ferries:								
East Boston Ferries			210,540 00	210,540 00	17,456 56	142,732 48	67,807 52	
Head-house, North Ferry, Boston side	4,548 88			4,548 88		4,528 19	20 69	
New Ferry Boat			50,000 00	50,000 00	5,000 00	15,867 22	34,132 78	
Engineer's Department			32,000 00	32,000 00	2,314 01	16,956 30	15,043 70	
Fire Department:								
Fire Department			601,043 00	601,043 00	45,364 01	395,770 97	205,272 03	
Fire-Alarm Telegraph			30,052 00	30,052 00	2,651 35	15,731 02	14,320 98	
Health Department			380,000 00	380,000 00	29,455 42	206,596 56	173,403 44	
<i>Carried forward</i>	\$203,178 68	\$582,875 04	\$3,096,963 00	\$3,883,016 72	\$312,287 09	\$2,108,344 01	\$1,775,048 21	\$6,481,486 11

¹ Transferred from Reserved Fund, \$5,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Nov. Draft, including Treasurer's payments in October.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including November Draft.
<i>Brought forward.</i>	\$203,178 68	\$582,875 04	\$3,096,963 00	\$3,883,016 72	\$312,287 09	\$2,108,344 01	\$1,775,048 21	\$6,481,486 11
Improved Sewerage ¹	191,013 41	509,000 00		700,013 41	203,101 40	752,512 35	(\$52,498 94 pro- vided for.)	4,308,498 94
Incidental Expenses		397 41	60,000 00	60,397 41	1,747 21	44,160 16	16,237 25	
Inspection of Buildings			33,500 00	33,500 00	3,380 81	20,712 71	12,787 29	
Interest			1,562,968 00	1,562,968 00	264,140 27	745,410 26	817,557 74	
Lamp Department			500,000 00	500,000 00	41,658 71	247,823 30	252,176 70	
Law Department			23,000 00	23,000 00	1,881 35	13,096 23	9,903 72	
Liquor License Expenses:								
Police Commissioners					2,279 46			
City Clerk's Department								
Collector's Department		296,121 00		296,121 00		88,856 45	207,264 55	
Treasurer's Department								
Pa'd State, proportion of receipts, 72,645 00)					1,131 75			
Markets			11,220 00	11,220 00	1,999 18	6,752 73	4,467 27	
Mount Hope Cemetery	4,559 54	10,022 08	14,743 00	29,324 62	3,361 22	26,352 70	2,971 92	
Northampton-street District	19,621 75			19,621 75			19,621 75	558,378 25
Old Claims			2,000 00	2,000 00		932 16	1,067 84	
Overseers of the Poor			113,750 00	113,750 00	7,193 15	38,622 43	75,127 57	
Park Department:								
Park Department	1,514 74		5,000 00	6,514 74	297 45	2,170 02	4,344 72	
Office Expenses								
Muddy River Survey, etc.								29,401 85
Arnold Arboretum:								
Land	30,598 15			30,598 15			30,598 15	
Driveways, etc.			15,000 00	15,000 00	3,115 63	7,275 76	7,724 24	
Charles River Embankment:								
Land	38,000 00	200,000 00		238,000 00		62,487 00	175,513 00	124,487 00
Borings, etc. ²			1,000 00	1,000 00	496 19	768 09	231 91	
City Point Park:								
Land	39,364 70	100,000 00		139,364 70		25,023 29	114,341 41	105,658 59
Filling, etc. ³			3,000 00	3,000 00	287 31	1,518 48	1,481 52	
Covered Channel, Muddy River	24,287 88		50,000 00	74,287 88	3,327 13	28,105 27	46,182 61	83,817 39
<i>Carried forward.</i>	\$552,138 85	\$1,698,415 53	\$5,492,144 00	\$7,742,698 38	\$851,685 31	\$4,220,923 45	\$3,574,649 37	\$11,691,728 13

¹ Total Appropriations, \$5,253,000; transferred August, 1876, by authority of an order of July 17, from Reserved Fund, \$40,000, and loans authorized, \$5,213,000; loans negotiated, \$4,216,000.

² Transferred from Reserved Fund, \$1,000.

³ Transferred from Reserved Fund, \$3,000.

AUDITOR'S MONTHLY EXHIBIT.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Nov. Draft, including Treasurer's payments in October.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including November Draft.
<i>Brought forward</i>	\$552,138 85	\$1,698,415 53	\$5,492,144 00	\$7,742,698 38	\$851,685 31	\$4,220,923 45	\$3,574,649 37	\$11,691,728 13
Covered Channel, Stony Brook	3,192 50			3,192 50		2,014 66	1,177 84	125,199 51
East Boston Park, care, etc.			5,000 00	5,000 00		49 33	4,950 67	32,947 40
Muddy River Improvement	4,864 67	100,000 00		104,864 67		12,812 07	92,052 60	
Park Nursery, Austin Farm	367 22		1,000 00	1,367 22		93 41	1,273 81	
Public Park, Back Bay:								
Land	21,925 21			21,925 21			21,925 21	444,074 79
Filling, etc.	121,765 48		100,000 00	221,765 48	18,829 43	117,021 91	104,743 57	782,956 43
West Roxbury Park		300,000 00		364,066 97		110,316 97	253,750 00	346,250 00
Care, etc.	64,066 97		5,000 00	5,000 00	722 94	4,418 35	581 65	
Paving Department			800,000 00	800,000 00	69,877 14	610,203 70	189,796 30	
Phillips Street Fund, Income	4,358 16			4,358 16			4,358 16	
Police Department			970,324 00	970,324 00	74,376 70	535,922 02	434,401 98	
Printing and Stationery (general)	7,250 00		37,500 00	44,750 00	4,156 35	20,882 25	23,867 75	
Public Buildings:								
Public Buildings	23,340 99	7,559 84	136,650 00	167,550 83	11,242 23	103,338 79	64,212 04	
Engine-house, Bunker Hill Street			25,000 00	25,000 00	4,600 00	6,899 40	18,100 60	
Health Department Stables	2,613 97			2,613 97		2,575 50	38 47	
Library Lot, Dartmouth st. and St. James av., ¹		100,000 00		100,000 00		57,175 00	42,825 00	
Public Institutions, viz.:								
House of Industry			176,200 00	176,200 00	13,495 14	100,367 38	75,332 62	
House of Correction			90,400 00	90,400 00	9,317 44	66,487 82	23,912 18	
Lunatic Hospital			60,000 00	60,000 00	4,114 20	37,193 76	22,806 24	
Marcella-street Home			45,000 00	45,000 00	2,483 47	23,168 88	21,831 12	
Almshouse, Austin Farm			27,000 00	27,000 00	3,505 16	14,334 67	12,665 33	
Almshouse, Charlestown District			10,950 00	10,950 00	779 33	7,482 64	3,467 36	
Pauper Expenses			159,000 00	159,000 00	29,622 95	97,877 32	61,122 68	
Steamboat "J. Putnam Bradlee"			14,000 00	14,000 00	735 10	12,016 57	1,983 43	
New boilers, etc., steamboat "J. Putnam Bradlee"			7,600 00	7,600 00		7,599 49	51	
Office Expenses			8,500 00	8,500 00	611 25	5,002 33	3,497 67	
Stone-cutting, Deer and Rainsford Islands			16,000 00	16,000 00	229 80	3,950 60	12,049 40	
Marcella-street Home, fences and grounds	1,004 92			1,004 92	233 63	678 63	326 29	
Furnishing Master's house, House of Cor- rection			2,000 00	2,000 00		1,999 60	40	
<i>Carried forward</i>	\$806,888 94	\$2,205,975 37	\$8,189,268 00	\$11,202,132 31	\$1,100,617 57	\$6,183,306 50	\$5,071,700 25	\$13,423,156 26

¹ Loan authorized, \$180,000; loan negotiated, \$100,000.

APPROPRIATIONS, CONTINUED

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Nov. Draft, including Treasurer's payments in October.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including November Draft.
<i>Brought forward</i>	\$806,888 94	\$2,205,975 37	\$8,189,268 00	\$11,202,132 31	\$1,100,617 57	\$6,183,306 50	\$5,071,700 25	\$13,423,156 26
Public Lands			6,000 00	6,000 00	1,483 78	3,002 11	2,997 89	
Public Library			120,000 00	122,093 95	9,316 82	66,939 41	55,154 54	
Record Commissioners			4,500 00	4,500 00	296 23	2,379 61	2,120 39	
Record of Street Names	1,500 00			1,500 00	200 00	200 00	1,300 00	
Registration of Voters and Election Expenses:								
Registration of Voters			25,000 00	25,000 00	6,108 33	15,599 34	9,400 66	
Election Expenses			15,000 00	15,000 00	524 60	1,185 71	13,814 29	
Reserved Fund ¹			157,715 00	157,715 00			157,715 00	
Salaries			37,500 00	37,500 00	3,133 34	21,906 89	15,593 11	
Schools and School-houses, viz.:								
School Instructors			1,143,471 00	1,143,471 00	96,664 87	650,800 71	492,670 29	
Salaries Officers, School Committee			58,940 00	58,940 00	4,901 66	34,311 66	24,628 34	
School Expenses, School Committee			255,650 00	255,650 00	14,045 17	170,633 53	85,016 47	
Gibson School Fund, Income	2,084 95	137 00		2,221 95	157 08	660 79	1,561 16	
School-houses, Public Buildings			169,000 00	169,000 00	12,532 02	145,019 32	23,980 68	
Addition to Auburn-street School-house			5,000 00	5,000 00	100 00	210 94	4,789 06	
Addition to Chapman School-house	13,591 10			13,591 10	3,084 83	12,348 83	1,242 27	
Chapman School-house, furnishing						1,614 02	385 98	
Addition to School-house lot, Sumner-street, Dorchester ²			2,000 00	2,000 00				
Addition to East Boston High School-house			7,500 00	7,500 00		7,279 50	220 50	
East Boston High School-house, furnishing	30,000 00		5,000 00	35,000 00	2,165 25	2,500 59	32,499 41	
Enlargement of Lexington-street School- house lot			2,000 00	2,000 00			2,000 00	
English High and Latin School Buildings ³			2,300 00	2,300 00		2,300 00		467,830 82
George Putnam School, completion of	1,547 43			1,547 43			1,547 43	
Grammar School-house, Hammond-park st.:			15,000 00	15,000 00	3,135 00	4,420 67	10,579 33	
Site								
Building			78,000 00	78,000 00	59 28	27,060 78	50,939 22	
<i>Carried forward</i>	\$857,706 37	\$2,206,112 37	\$10,298,844 00	\$13,362,662 74	\$1,258,525 83	\$7,353,680 91	\$6,061,856 27	\$13,890,987 03

¹ Transferred to Addition to East Boston High School-house, \$5,000.
Addition to School-house lot, Sumner street, Dorchester, \$7,500.
Charles River Embankment, Borings, etc., \$1,000.
City Point Park, Filling, etc., \$3,000.
Curbstones, Copley Square, \$5,000.
Foot-bridge, Franklin street, Brighton, \$3,500.
Primary School-house, Main street, Charlestown, \$1,085.
Primary School-house site, Savin-Hill avenue, \$6,200.
Store-house, Gallop's Island, \$10,000.

² Transferred from Reserved Fund, \$7,500.
³ Total appropriation, \$469,378.25; loan authorized and negotiated, \$350,000; transfer, \$16,378.25; appropriations, \$103,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Nov. Draft, including Treasurer's payments in October.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including November Draft.
<i>Brought forward</i>								\$13,890,987 08
Grammar School-house, Kenilworth street .	\$87,706 37	\$2,206,112 37	\$10,298,844 00	\$13,362,662 74	\$1,258,525 83	\$7,353,680 91	\$6,061,856 27	95,330 23
Grammar School-house, Kenilworth street, furnishing	34,546 47		7,500 00	42,046 47	4,851 95	32,064 20	9,982 27	
Primary School-house, Harbor View street .			6,200 00	6,200 00	917 75	5,191 25	1,008 75	
Primary School-house, Howard-avenue . .	12,000 00			12,000 00	132 52	347 86	11,652 14	42,907 92
Primary School-house, Howard-avenue . .	31,317 07			31,317 07	450 00	21,175 99	10,141 08	
Primary School-house, Howard avenue, furnishing			3,500 00	3,500 00	1,472 60	1,615 60	1,884 40	
Primary School-house, Main street, Charles- town:—								
Site			42,085 00	42,085 00			42,085 00	
Building	40,000 00		10,000 00	50,000 00	4,100 00	7,404 17	42,595 83	13,404 17
Primary School-house, O street			30,000 00	30,000 00			30,000 00	
Primary School-house, Parker street			6,200 00	6,200 00			6,200 00	
Primary School-house site, Savin Hill avenue, ² Primary School-house, vicinity of Blossom street:—			100,000 00	100,000 00			100,000 00	
Site								
Building	7,960 70			7,960 70	771 47	6,311 77	1,648 93	7,351 07
School-house, Breed's Island:—								
Site								
Building			9,140 00	9,140 00	736 11	5,324 32	3,815 68	
Sealer of Weights and Measures			250,000 00	250,000 00	33,493 24	210,288 87	39,711 13	
Sewer Department			2,000 00	2,000 00	61 00	918 89	1,081 11	
Shking-Fund Commissioners								
Soldiers' Relief	77,948 77		40,000 00	77,948 77	7,606 68	52,779 94	25,168 83	294,786 98
Stony Brook Improvement	433 41			40,433 41	857 01	40,317 95	115 46	2,428,116 65
Suffolk Street District	659 71			659 71	527 40	527 40	132 31	
Surveyor's Department			30,000 00	30,000 00	2,190 42	16,743 20	13,256 80	
Temporary Loan			97,000 00	97,000 00	97,000 00	97,000 00		
Treasurer's Department			29,500 00	29,500 00	2,387 22	16,754 76	12,745 24	
Water Works:—								
Cochituate Water Works		312,828 28		312,828 28		531,115 62	(\$218,287.34 pro- vided for.)	
Running expenses					47,849 76			
Interest					215,772 50			
<i>Carried forward</i>	\$1,062,572 50	\$2,518,940 65	\$10,961,969 00	\$14,543,482 15	\$1,679,733 46	\$8,399,562 70	\$6,415,081 23	\$16,772,884 10

¹ Transferred from Reserved Fund, \$1,085.² Transferred from Reserved Fund, \$6,200.

APPROPRIATIONS, CONCLUDED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Nov. Draft, including Treasurer's payments in October.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works May 1, 1883, including November Draft.
<i>Brought forward.</i>	\$1,062,572 50	\$2,518,940 65	\$10,961,969 00	\$14,543,482 15	\$1,679,733 46	\$8,399,562 70	\$6,415,081 23	\$16,772,884 10
Additional Supply of Water ¹	219,141 48			219,141 48	69,633 24	248,026 70	(\$28,885 22 pro- vided for.)	5,765,772 02
New Main, Cochituate Water Works	9,486 78	70,000 00		79,486 78	8,270 84	46,765 60	32,721 18	817,278 82
Introduction of Meters and Inspection		50,000 00		50,000 00	7,894 49	13,635 56	36,364 44	
Mystic Water Works		107,361 30		107,361 30		100,519 36	6,841 94	
Running expenses					10,041 01			
Interest					16,205 00			
Proportions paid under con- tracts								
18,245 57								
Mystic Sewer	7,256 02			7,256 02		6,955 53	1,300 49	123,699 51
West Boston and other Bridges			11,500 00	11,500 00	331 48	5,783 44	5,716 56	
Widening and Extending Streets:—								
Widening Streets			100,000 00	100,000 00	2,506 20	38,852 63	61,147 37	
Broadway Extension	41,284 56			41,284 56	4,964 70	39,256 15	2,028 41	1,317,965 59
Columbus Avenue Extension	3,012 70			3,012 70			3,012 70	61,987 30
Commonwealth Avenue Extension	25,727 76			26,727 76			26,716 51	199,283 49
Commonwealth Avenue Extension, Brighton D Street Extension			55,000 00	55,000 00			55,000 00	
Eastern Avenue and Bridge	8,800 73		10,000 00	18,800 73			18,800 73	46,199 27
Foot-bridge, Franklin Street, Brighton ²	13,569 79			13,569 79			13,569 79	186,430 21
Harrison Avenue Extension	3,604 17		3,500 00	3,604 17			3,500 00	
Huntington Avenue Extension	49,099 42		40,000 00	89,099 42	3,609 50	41,334 56	3,604 17	126,515 83
Camden st. to Parker st. { Parker st. to Tremont st. }							47,764 86	
Phillips Street Extension								54,354 98
Washington Street Extension	24,303 00		32,300 00	32,300 00	7,237 00	14,669 00	17,631 00	92,880 16
Widening Commercial Street	12,471 83			24,303 00			24,303 00	1,645,697 00
Widening Kneeland Street ³	6,515 66	1,000 00		12,471 83		175 00	12,296 83	487,703 17
Widening Portland Street	85,352 31			7,515 66		7,000 00	515 66	120,484 34
Widening South Street	20,174 92			85,352 31	23,377 68	28,511 93	56,840 38	243,159 62
Widening South Street, East Street to Kneee- land Street	21,757 69			20,174 92			20,174 92	119,825 08
				21,757 69		55 00	21,702 69	163,297 31
	\$1,614,131 32	\$2,747,301 95	\$11,214,269 00	\$15,575,702 27	\$1,833,804 60	\$8,990,114 41	\$6,885,634 86	\$27,850,417 80
						Less prov. for,	300,047 00	
							\$6,585,587 86	

¹ Total appropriations, \$6,357,886.80; loans negotiated, premium on said loans, and transfer from Reserved Fund, \$5,736,886.80.

² Transferred from Reserved Fund, \$3,500.

³ Loan authorized, \$180,000; loan negotiated, \$121,000.

CITY OF



BOSTON.

MONTHLY STATEMENT

OF THE

TREASURY DEPARTMENT.

TREASURER'S OFFICE,

BOSTON, Nov. 2, 1883.

TO THE HONORABLE CITY COUNCIL:—

GENTLEMEN, — The undersigned herewith presents a statement of the receipts and payments of the Treasury Department of the City of Boston for the month of October, 1883, showing the balance of money remaining in the Treasury at the close of the month of October, 1883, and where deposited.

Respectfully submitted,

ALFRED T. TURNER, *City Treasurer.*

Monthly Statement of the Treasury Department.

Balance, September 30, 1883 . . . \$1,910,174 88

RECEIPTS IN OCTOBER, 1883.

From City Collector, on City Account	\$3,768,851 03	
From City Collector, on County Account	18,878 65	
		\$3,787,729 68
From Sinking-Fund Commissioners, —		
For payment of Debt		73,000 00
City 4% Loan, Improved Sewerage		9,000 00
Interest on Bank Deposits		3,406 04
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid		2,562 43
		<u>\$5,785,873 03</u>

PAYMENTS IN OCTOBER, 1883.

On Mayor's general draft	\$783,013 10
" " special drafts	1,137,616 05
	<u>\$1,920,629 15</u>
County of Suffolk, allowed by Auditor of the County of Suffolk	33,751 31
Sinking-Fund Commissioners, Revenue, payable under authority of Ordinance on Finance	15,187 51
Police Charitable Fund	7,000 00
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters	3,281 76
Liquor licenses paid State of Massachusetts, ...	1,131 75
City 5% Loan	1,000 00
Cedar Grove Cemetery Trust Fund	1,000 00
Mount Hope Cemetery Trust Fund	1,000 00
Tax-title, 249 Webster street	115 30
Refunded taxes, expenses, costs, etc.	113 00
Stoughton School Fund Income	69 00
	<u>\$1,984,278 78</u>

RECAPITULATION.

Balance, September 30, 1883 . . .	\$1,910,174 88
Receipts during October, 1883 . . .	3,875,698 15
Payments during October, 1883 . . .	1,984,278 78
Balance, October 31, 1883 . . .	<u>\$3,801,594 25</u>

STATEMENT

For the Financial Year 1883-84, from May 1, 1883, to Oct. 31, 1883, inclusive:—

Balance on hand May 1, 1883 . . .	\$2,564,013 55
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RECEIPTS.

From City Collector, on City Account . . .	\$5,709,707 21	
From City Collector, on County Account . . .	44,611 90	
		5,754,319 11
City 4% Loans,—		
Charles-River Embankment, \$200,000 00		
City Point Park . . .	100,000 00	
Improved Sewerage . . .	509,000 00	
Library Lot, Dartmouth St. and St. James Ave. . .	100,000 00	
Muddy-River Improvement, . . .	100,000 00	
West Roxbury Park . . .	300,000 00	
Widening Kneeland Street, . . .	1,000 00	
		1,310,000 00
Cochituate Water 4% Loans,—		
Introduction of Meters and Inspection . . .	\$50,000 00	
New Main, Cochituate Water Works . . .	70,000 00	
		120,000 00
Temporary Loan, 1883-84 . . .		1,930,000 00
From Sinking-Fund Commissioners,—		
For payment of Debt . . .	\$570,000 00	
Refunded betterments and costs . . .	178 68	
		570,178 68
Premium on City Loans . . .		61,740 00
Interest on Bank Deposits . . .		30,221 64
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid . . .		16,508 12
Tax-title, 249 Webster street . . .		115 30
		<u>\$12,357,096 40</u>

PAYMENTS.

On Mayor's general draft . .	\$3,160,859 61	
“ “ special drafts . .	4,677,249 32	
		\$8,038,108 93
To Sinking-Fund Commissioners, revenue payable under authority of Ordinance on Finance		193,244 36
County of Suffolk, allowed by Auditor of the County of Suffolk		175,257 13
Liquor licenses, paid State of Massachusetts, City 5% Loan		72,645 00
		46,000 00
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters		15,173 73
Police Charitable Fund		7,000 00
Refunded taxes, expenses, costs, etc.		4,777 86
Cedar Grove Cemetery Trust Fund		1,000 00
Mount Hope Cemetery Trust Fund		1,000 00
Old claims, Mayor's drafts, of 1882-83, etc., Refunded betterments and costs		932 16
		178 68
Tax-title, 249 Webster street		115 30
Stoughton School Fund Income		69 00
		<u>\$8,555,502 15</u>

RECAPITULATION.

Balance, May 1, 1883	\$2,564,013 55
Receipts from May 1 to October 31, 1883, inclusive	9,793,082 85
	\$12,357,096 40
Payments to October 31, 1883, inclusive	8,555,502 15
Balance, October 31, 1883	<u>\$3,801,594 25</u>
Balance, October 31, 1883, as per preceding and monthly statements, as follows: —	
Money deposited in the following banks: —	
Merchants' National Bank	\$2,052,634 68
National Bank of Redemption	513,511 77
Howard National Bank	504,480 41
Globe National Bank	524,701 10
National Bank of Commerce, pay-roll tailings account	5,449 89
	\$3,600,777 85
Cash and cash vouchers in office	200,816 40
Total, as above	<u>\$3,801,594 25</u>

ALFRED T. TURNER,
City Treasurer.

CITY OF



BOSTON.

AN ORDINANCE

TO

ESTABLISH THE SALARY OF THE
INSPECTOR OF VINEGAR.

In the Year One Thousand Eight Hundred and Eighty-three.

AN ORDINANCE TO AMEND CHAPTER 6 OF THE REVISED
ORDINANCES.

*Be it ordained by the City Council of the City of Boston,
as follows: —*

SECTION 1. Chapter Six of the Revised Ordinances is hereby amended in Section One by inserting after line thirty-one, of page eighteen, the following words: "The Inspector of Vinegar, one thousand two hundred dollars."

IN COMMON COUNCIL, Nov. 1, 1883.

Passed. Sent up for concurrence.

GODFREY MORSE,
President.

IN BOARD OF ALDERMEN, Nov. 5, 1883.

Concurred.

HUGH O'BRIEN,
Chairman.

Approved November 6, 1883.

ALBERT PALMER,
Mayor.

A true copy.
Attest:

FREDERICK E. GOODRICH,
City Clerk.

CITY OF



BOSTON.

AN ORDINANCE

CONCERNING

ANNUAL REPORT OF OVERSEERS OF
THE POOR.

In the Year One Thousand Eight Hundred and Eighty-three.

AN ORDINANCE TO AMEND CHAPTER 28 OF THE REVISED
ORDINANCES.

*Be it ordained by the City Council of the City of Boston,
as follows: —*

SECTION 1. Chapter 28 of the Revised Ordinances is
amended by striking out in the second line of Section Five
the word "May," and inserting the word "June" in place
thereof.

IN COMMON COUNCIL, Nov. 1, 1883.

Passed. Sent up for concurrence.

GODFREY MORSE,
President.

IN BOARD OF ALDERMEN, Nov. 5, 1883.

Concurred.

HUGH O'BRIEN,
Chairman.

Approved November 6, 1883.

ALBERT PALMER,
Mayor.

A true copy.

Attest:

FREDERICK E. GOODRICH,
City Clerk.

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CITY OF



BOSTON.

REPORT

OF

COMMITTEE ON STANDARD TIME.

IN COMMON COUNCIL, Oct. 18, 1883.

Ordered, That Messrs. Strange, Parkman, and Donovan, with such as the Board of Aldermen may join, be a Special Committee to examine and report upon the necessity or propriety of any change in the standard of time to be shown by the public clocks or apparatus.

Passed. Sent up for concurrence.

GODFREY MORSE,
President.

IN BOARD OF ALDERMEN, Oct. 22, 1883.

Concurred, and Aldermen Haldeman and Kendriken were joined.

HUGH O'BRIEN,
Chairman.

Approved Oct. 23, 1883.

ALBERT PALMER,
Mayor.

IN COMMON COUNCIL, Nov. 1, 1883.

The Joint Special Committee appointed to examine and report upon the necessity or propriety of any change in the standard of time to be shown by the public clocks or apparatus, having considered the subject, beg leave to submit the following

REPORT:

The standard time used in this city is furnished from Harvard Observatory, and is struck at noon daily upon the bells attached to the Fire-Alarm Department.

Your committee conferred with representatives of the Observatory and with the Fire Commissioners, and submit, as the best method of presenting the facts in the case, the following abstract of the remarks made by those gentlemen:—

Fire-Commissioner Fitzgerald, who has charge of the Fire-Alarm Department, which has the care of bells and clocks, stated that, in response to a communication on the subject from Mr. Edmands, who had charge of the Harvard Observatory in the absence of Prof. Pickering, he had written that the Board considered the Observatory their guide in relation to the standard of time; and whatever standard was adopted there, the Board would be obliged to adopt. The new standard having been adopted by the Railroad Time Convention at Chicago, the Observatory had agreed to furnish it to the railroads leading out of Boston. The commissioners suggested that the change should go into effect on a Sunday, in order that business might not be disturbed; and accordingly Sunday, the 18th of November, was agreed upon.

The time adopted here is the 75th meridian from Greenwich, so that the noon hour will be exactly five hours later than Greenwich time, and between the 60th and 75th degrees of longitude the time will be precisely the same. From the east to the Alleghany mountains, and away down in the southern section of the country, the time will be the same. The 75th meridian passes very near Philadelphia, and that city will be more nearly the true meridian. From the 75th to the 90th meridian the time will be an hour later, and from the 90th to the 105th another, and so on; so that, if you are travelling from here to Pittsfield and Albany, the time will be precisely the same upon the railroads, and one place will not have Boston time and another New York time, but all the trains will be run on the same time. A great many people are under the impression that the present system shows the actual time; but it is only true time about four times in the year, while the new time will be right twice. The advantage

to be gained is, that the watches and clocks of both the public and the railroads will be precisely the same in Boston, New York, Albany, Philadelphia, and other places east of the 75th meridian.

If the city does not adopt it, the railroad time will be sixteen minutes, forty-four and one-half seconds later than the city time, and the time ball on the Equitable Building will fall just that much later than the city noon time.

The commissioners thought there should not be such a conflict as that, but there should be one time for the city and the railroads. All the railroads leading out of Boston have adopted it, and it will go into effect on the 18th of November. The only question is whether the city will adopt the Harvard standard of time. There is no ordinance regulating the matter. The city pays four hundred dollars a year to Harvard Observatory to furnish it correct time; but there is nothing compelling the city to adopt the Harvard standard.

Mr. J. Rayner Edmands, of the Harvard Observatory, corroborated Mr. Fitzgerald's statement in regard to the adoption of the new standard, and presented a map showing the present complicated system of fifty different standards of time in use by the railroads of the country.

Professor Edward C. Pickering, of the Harvard College Observatory, said the matter had been before him for several years, in various forms, from scientific individuals and societies, and the system had been strongly advocated by Professor Pierce; but the speaker had preferred to be rather conservative, believing that scientific men alone should not take the initiative, but that the public should make the first move. He had, therefore, declined to take any steps until the public had consented to make the change. On returning from Europe, a few weeks ago, he found that the railroad companies were about to hold a time convention in Chicago; that many of them were about adopting the new system by which the present complications would be reduced, provided the convention adopted it. Nearly all the New England railways were backward, while in the Middle and Western States they were in favor of it. Several have made it a condition of adoption that the Boston ball should adopt the same standard. This at once placed upon the Observatory an important responsibility. The one thing to be deprecated is the use of two standards of time. In daily use it will cause constant confusion. Any system is preferable, if we can only retain one standard of time. Before consenting to the change it seemed to him that others interested should first adopt it. The Boston time-ball regulates the time of the New England railroads.

At Washington there is a strong inclination to use the meridian there, but the Signal Service Department strongly prefer the new system. Even the Washington Naval Observatory proved to be strongly in favor of it. He then approached the officers of the Boston City Government, and the Board of Fire Commissioners, recognizing the fact that the change would not be noticed by ninety-nine persons out of a hundred after it had once been made, and that a great many conveniences would be given to the people who travel on railways, agreed to accept the change if made. On the strength of that assurance he at once notified the Chicago convention that he would make the change. His letter was telegraphed to the convention, was received with applause, and no doubt had much effect upon their decision. It is a matter of great pride that the lead was taken in this matter by the City of Boston and Harvard College Observatory.

All the preparations are being made for the introduction of the new system in the different parts of the United States. But he did not mention these facts as showing all the reasons for the change. The arguments in favor of it are stronger now than formerly. Since the Railroad Time Commission was appointed, a convention has been held in Rome, and adopted a system similar to this. Steps are being taken by the various railroads in the United States, and there is little doubt but that this standard of time will be in use by all of them, and by the government of the United States.

If the City of Boston should withdraw from the position which it now occupies, very great inconvenience would doubtless be the result. Constant inconveniences are arising in cities where two times are in use. We do not experience it here because Boston time is almost universally in use in this section. Care has been taken to keep the public fully informed of the action taken by the Fire Commissioners and the Observatory. The letters were printed in the daily papers, so that, if there was any opposition, it might be expressed before action was taken by the convention. The opposition comes from those who, at first glance, think it will be a great inconvenience. But after the change is once made he thought very few people would find it out if they did not know it.

The argument has been used that we should use the true time when the sun crosses the meridian. The sun crosses the meridian to-day at about a quarter of an hour from the time which is accepted as noon. It has long been the custom not to use the time given by the sun, but that given by the astronomers, known as mean time.

When people used the sun-dial it was a quarter of an hour

fast one day, and a quarter of an hour slow another day. When accurate watches were constructed this mean time was adopted throughout the world. A great many persons did not notice the change, and had never heard of it. The present mean time is correct only four times a year, and it varies a quarter of an hour a day. The introduction of Greenwich time has been strongly advocated; but the inconveniences would be so great that it was thought best to make the change hour by hour, so that, in going west, you would only have to allow an hour, the minutes and seconds being all right.

There is little doubt but that New York and Philadelphia will adopt the new system, because they are concerned so little, — the difference in New York being only five minutes, and in Philadelphia only a minute; but official action has not been taken by those cities. All the Canadian railroads were in favor of the change but one, — a local road leading from Ottawa, — which said it could not adopt it unless the city of Ottawa did. The Professor explained from the railroad time map, previously referred to, the different systems of time in use in the country.

Professor J. D. Runkle, formerly President of the Institute of Technology, thought the change would not be noticed after it was adopted. Boston is the capital city of the State; the railroads centre here; its time is used largely throughout the eastern part of the State, and we have felt no inconvenience; but in cities where the railroads move by one time, and the public by another, the inconveniences are very great.

It will be seen from the foregoing that on the 18th inst. the new standard of time will go into operation on all the principal railroads of the country. In view of this it is believed that all the leading cities will adopt the same standard for their public clocks, in order to avoid the confusion which would arise in case of difference between local and railroad time. Some have already taken official action on the subject, and others it is expected will soon follow.

The United States Signal Service having also adopted the new standard, the time-ball on the Signal Station in this city will be dropped by that standard on the above date.

The only control the City Council can exercise in relation to the subject is to require the Fire Commissioners to continue to strike the noon hour on the fire-alarm bells by the present instead of the new standard. The question is, therefore, whether by taking such action the City Council will compel the use of two time standards in Boston.

If this should be done it will be readily seen what great confusion would be occasioned, especially among those whose hours are to a great extent regulated by railroad time. A large number of our citizens would be compelled to keep two standards of time, one local and the other railroad. Residents of our outlying wards, and people who do business in Boston and reside in the suburbs, will have to use the new standard, for that will regulate their hours for going to and from business. In all transactions connected with railroads the new standard would be used, but for business and social purposes in Boston it would be necessary to use local time. It would, therefore, be difficult to make appointments for business or other purposes without risk or mistakes arising, unless care was taken to specify the hour by both local and standard time. The complications that would be liable to arise, and the inconvenience that would be occasioned, will be readily seen.

On the other hand, it is believed that no permanent inconvenience will be experienced from the change. A standard of time is, to a certain extent, purely conventional, and as soon as timepieces have been adjusted to the new standard the public generally will not note any difference. The fact that in 1848 the standard was changed in England, and that a few years ago the use of the New York meridian was made compulsory in Connecticut, without in either case causing any permanent inconvenience to the public, is a proof that any fears on that score are not well founded. It may be said that the change is more for the convenience of railroads and travellers than for the public generally. This may be true; but when we consider how large a proportion of our population make use of railroads during the year, it is evident that anything which will contribute to the more systematic running of the roads, and, consequently, the prevention of accidents, is of the greatest interest to the whole community, and solicits our heartiest coöperation.

Your committee believe that it would be inexpedient to interfere with the arrangements which have been made in regard to changing the standard in this city. Further than that they are of the opinion that the City Council should place upon record its official indorsement of the change; and the committee, therefore, respectfully recommend the passage of the following resolution.

For the Committee,

FELIX A. STRANGE.

Resolved, That the City Council of Boston hereby approves the action of the Board of Fire Commissioners in adopting the new standard of time to be furnished by Harvard University on and after November 18, 1883.

IN COMMON COUNCIL, Nov. 1, 1883.

Recommitted, with instructions to give a public hearing, and report in print.

Sent up for concurrence.

GODFREY MORSE,
President.

IN BOARD OF ALDERMEN, Nov. 5, 1883.

Concurred.

HUGH O'BRIEN,
Chairman.

CITY OF



BOSTON.

METROPOLITAN RAILROAD.

NINETY-FIRST LOCATION.

IN BOARD OF ALDERMEN, Nov. 5, 1883.

The Committee on Railroads, to whom was recommitted the petition of the Metropolitan Railroad Company for leave to connect their tracks in Federal street with their tracks in Atlantic avenue, and to use the tracks of other roads in Federal, Kneeland, Beach, and Lincoln streets, having considered the subject, respectfully recommend the passage of the following order.

For the Committee,

CHAS. V. WHITTEN,

Chairman.

Ordered, That in addition to the rights heretofore granted the Metropolitan Railroad Company to lay down tracks in several of the streets of Boston, said company shall have the right to connect its easterly track in Federal street, near Atlantic avenue, as shown by red lines on a plan made by Arthur Hodges, civil engineer, dated May 11, 1883, and deposited in the office of the Superintendent of Streets. This location is granted upon condition that said Metropolitan Railroad Company shall accept the same, and shall file said acceptance with the City Clerk within thirty days of the passage of this order; otherwise it shall be null and void.

Said company shall also have the right to enter upon and use with its horses and cars the tracks of the South Boston and Middlesex Railroads in Federal, Kneeland, Beach, and Lincoln streets, for the purpose of running thereon a part of its "Belt Line" of cars, so called.

Passed.

FREDERICK E. GOODRICH,

City Clerk.

CITY OF



BOSTON.

AN ORDER

CONCERNING

A BOARD OF PUBLIC WORKS.

IN COMMON COUNCIL, Nov. 8, 1883.

Ordered, That His Honor the Mayor be requested to petition the next Legislature that the City Council may have power to establish by ordinance a Board of Public Works, consisting of five members, and to substitute such Board for any existing commissions or departments, whether elected by the people or otherwise appointed, except the Boards of Health, Fire, and Police; the salaries and duties of the members of said Board of Public Works to be such as the City Council shall from time to time determine.

IN COMMON COUNCIL, Nov. 8, 1883.

Read, and assigned to the next meeting, at eight o'clock P.M., and ordered to be printed.

CITY OF



BOSTON.

REQUEST

FROM

COMMITTEE ON PUBLIC BUILDINGS

FOR

ADDITIONAL APPROPRIATIONS

TO COMPLETE

GRAMMAR SCHOOL-HOUSE, KENILWORTH STREET, PRIMARY
SCHOOL-HOUSE, HOWARD AVENUE, AND THE
ADDITION TO THE CHAPMAN
SCHOOL-HOUSE.

IN BOARD OF ALDERMEN, November 19, 1883.

The Committee on Public Buildings desire to represent that additional appropriations will be required to complete the Grammar School-house, Kenilworth street, Primary School-house, Howard avenue, and the addition to the Chapman School-house. For the Kenilworth-street School-house the sum of \$2,000 is required for the extra mason-work, gates, and fences. In the case of Primary School-house, Howard avenue, there are bills due both the contractors for extra work caused by changes and additions to the contract, which will amount to \$1,000. The same amount (\$1,000) is required for extra carpentry in building the addition to the Chapman School-house, East Boston.

Your committee would inform the City Council that this deficiency, namely, \$4,000, can be transferred from appropriations for Primary School-house, O street, or Engine-house, Bunker Hill street, leaving a balance sufficient to complete said buildings.

Following is a statement of the expenditures to date on these buildings, for which special appropriations were made:—

GRAMMAR SCHOOL-HOUSE, KENILWORTH STREET.

Appropriation	\$77,500 00
Printing and advertising	\$211 15
Additional land	925 60
Foundation stone	1,256 44
Teaming stone	459 40
Excavating and stone-work for foundations	3,438 75
Freestone	700 50
Masonry	37,843 00
Carpentry	23,187 00
Superintending construction	404 00
Gas piping and plumbing	623 00
Steam-heating and ventilating apparatus	4,951 00
Fire-proofing	2,112 02
Covering steam-pipes	538 30
Paving	401 75
Fire-pipe	68 66
Miscellaneous expenses	177 16
Unexpended balance of the appropriation	202 27
	\$77,500 00
Appropriation asked for to complete the masonry and fencing	\$2,000 00

PRIMARY SCHOOL-HOUSE, HOWARD AVENUE.

Appropriation	\$53,049 00
Paid for land	\$13,048 65
Moving buildings from the lot	354 47
Printing and advertising	142 46
Superintending construction	824 00
Masonry	20,100 00
Carpentry	8,000 00
Ventilating apparatus	355 60
Fire-pipe	82 74
Due on contracts outstanding	10,141 08
	\$53,049 00
Appropriation required to complete the extra work for carpentry and masonry	\$1,000 00

ADDITION TO THE CHAPMAN SCHOOL-HOUSE.

Appropriation	\$15,000 00
Printing and advertising	\$100 90
Superintending construction	736 00
Masonry	9,147 83
Carpentry	3,500 00
Roofing	143 00
Lightning-rods	89 75
Fire-proofing	481 25
Heating apparatus	537 00
Miscellaneous expenses	22 00
Unexpended balance of appropriation	242 27
	\$15,000 00
Appropriation required to complete the carpentry work	\$1,000 00

For the Committee,

WILLIAM WOOLLEY,

Chairman.

CITY OF



BOSTON.

REPORT

OF

COMMITTEE ON ORDINANCES

IN REGARD TO

CARE OF TREES IN PUBLIC STREETS.

IN COMMON COUNCIL, Nov. 22, 1883.

The Joint Standing Committee on Ordinances, who were requested to report such amendments to the ordinances as may be required to make them conform to the statutes relating to the care and maintenance of trees in the public streets, having considered the subject, beg leave to submit the following

REPORT:

The trees standing in the highways in the city may be divided into two classes, — those owned by the city, and those owned by individuals. The powers and duties of the city differ in respect to each class.

1. As to the city trees, part belong to it because it owns the fee of the street whereon they are planted. These trees, like other public property, are under the care and control of the City Council and its duly appointed officer, the Superintendent of the Common and Public Grounds, subject to the

fact that the Surveyors of Highways may remove such trees as obstruct or endanger public travel. The ordinance is ample, but requires perhaps a word or two added to make the meaning more evident.

1*. The other subdivision of city trees will include those set out under the provisions of Pub. Stat., chap. 54, § 9. By that law the Board of Aldermen "may set out and maintain shade-trees upon the public squares and highways," and it is right and proper that the Board should pass orders to regulate that matter; of course in that case a change in the ordinances is needed, only to allow the Superintendent to perform such duties as the Aldermen may assign to him.

Trees on public squares, other than parks, are of course the property of the city, and are governed by the foregoing rules.

2. As to the trees owned by private persons, the Corporation Counsel states that, in all streets the fee of which is *not* owned by the city, but by the abutters, the owners respectively own the trees, and may trim or prune them. The right to cut down such a tree, however, is limited by Pub. Stat., chap. 54, § 10, which obliges the owner to notify the Board of Aldermen first, so that they may buy and preserve it if they please.

2*. It seems, also, by Pub. Stat., chap. 54, § 6, that individuals may be *licensed* to plant trees along highways, which trees will be their private property, but may be removed when necessary.

It appears, then, that there are, or will be, (1) trees in charge of the City Council; (2) trees set out and maintained by direction of the Board of Aldermen; (3) trees in private ownership. The first step to be taken is to ascertain and properly record the number of each class. Your committee herewith submit orders to provide for such registration. They also submit, as in similar cases, a draft of such orders as the Board of Aldermen may adopt.

Undoubtedly it would be well to have all of the trees owned by the city under the same management and rules. This can only be effected by a change in the statutes, and your committee does not feel authorized to suggest any plan.

It has been suggested that many owners of trees planted on highways would be willing to give their trees to the city, if assured that they would be duly cared for. This matter

may well be considered by the joint standing committee on the Common and Public Grounds.

To give effect to their recommendations, your committee herewith report an Ordinance, a Standing Regulation of the Aldermen, and a Joint Order.

Respectfully submitted,

For the Committee,

W. H. WHITMORE.

AN ORDINANCE TO AMEND THE ORDINANCE RESPECTING
THE COMMON AND THE OTHER PUBLIC GROUNDS.

Be it ordained by the City Council of Boston, as follows:—

SECTION 1. The second section of chapter thirty-seven of the Revised Ordinances is hereby amended by adding in line six, after the word "city," the words, "which are in the charge of the City Council." Also, by adding to the said second section these words: "He shall also perform all duties in regard to trees which may be assigned him by vote of the Board of Aldermen."

IN COMMON COUNCIL.

Ordered, That the Joint Standing Committee on the Common and Public Grounds be directed to report in sufficient detail, a list of the public squares (exclusive of parks) and streets whereof the city owns the fee; and also to state the number of trees on such squares or streets which belong to the city.

Ordered, That said committee be instructed to report what action is desirable to obtain for the city the ownership of trees along public highways, which trees are now owned by individuals.

IN BOARD OF ALDERMEN.

The Standing Regulations of the Board of Aldermen are hereby amended by adding the following chapter:—

CHAPTER X.

OF TREES ON PUBLIC HIGHWAYS.

SECTION 1. The Superintendent of the Common and Public Grounds is hereby directed to take charge of all the shade-trees set out and maintained upon the streets of the city, under the provisions of section nine of chapter fifty-four of the Public Statutes; subject, however, at all times, to the direction of said Board or its duly-appointed committee.

SECT. 2. In case a tree in any street of the city shall obstruct or imperil travel, the said Superintendent shall proceed to remove such hindrance or danger, acting as the agent of the Surveyors of Highways in said city; *provided, however*, that nothing be done contrary to the provisions of Public Statutes, chapter fifty-two, section ten. The said Superintendent shall make monthly reports of any action taken under this section to the Board of Aldermen.

SECT. 3. The said Superintendent shall keep a record of all trees set out by him, under the authority of the Board of Aldermen, and shall report the same annually in the month of January to said Board.

AMERICAN CHARACTER AND INFLUENCE.

ORATION

DELIVERED BEFORE THE

City Council and Citizens of Boston,

JULY 4, 1883,

BY

H. BERNARD CARPENTER.

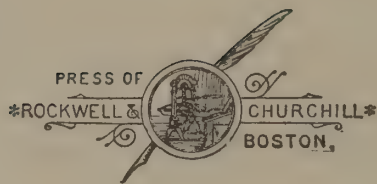
On n'a une patrie, et l'on n'est citoyen d'un pays, que lorsqu'on se décide à observer et à défendre certaines lois, à obéir à certain magistrats, et à adopter certaines manières d'être et d'agir.— JOUBERT.



BOSTON:

PRINTED BY ORDER OF THE CITY COUNCIL.

1883.



CITY OF BOSTON.

IN BOARD OF ALDERMEN, October 15, 1883.

Ordered, That the thanks of the City Council are due, and are hereby tendered, to the Rev. H. Bernard Carpenter, for the very appropriate, interesting, and eloquent oration delivered by him on the one hundred and seventh anniversary of American Independence, and that he be requested to furnish a copy for publication.

Passed. Sent down for concurrence.

HUGH O'BRIEN, *Chairman*.

IN COMMON COUNCIL, Oct. 18, 1883.

Concurred.

GODFREY MORSE, *President*.

Approved, Oct. 20, 1883.

ALBERT PALMER, *Mayor*.

102 CHESTNUT ST., BOSTON, Oct. 22, 1883.

Mr. Mayor and Gentlemen,—I thank you for the twofold honor which you have done me, first, in having invited me to deliver the oration, and now in asking me to furnish a copy of it for publication.

The manuscript, which was prepared immediately after the fourth of July, from my notes and the newspaper reports, is intended to be a faithful reproduction of what was then said. A few sentences on the closing pages have been added, and some foot-notes appended, which it is hoped may be of interest to the reader. With these slight exceptions the oration reappears as it was delivered. Hoping that when in print it may meet with your approval, I remain, Mr. Mayor and gentlemen,

Your faithful and obedient servant,

H. BERNARD CARPENTER.

To His Honor MAYOR PALMER, and the members of the City Council,
BOSTON.

ORATION.



Ladies and Gentlemen:—

When Mayor Palmer chose one of Irish origin, and of the ministerial calling, to be your speaker for to-day, he evidently wished to acknowledge the obligation of New England to old Ireland and to express his belief in one of the Irish legends, which says that America was first discovered, not by a Spanish nor a Scandinavian sailor, but by an Irishman; and, more than that, by an Irish saint. And now, as His Honor has introduced me, I will, in my turn, introduce the Irish saint, and the Irish saint shall, in his turn, introduce my subject for me this morning. The story of St. Brendan may be told in a few words. In the fifth century after Christ the fishermen of the west had long been looking out into the Atlantic, for with every seventh year there used to rise from the deep a phantom island, which loomed across the golden paths of the sunset, and then vanished. If any one, they said, could touch that magic shore with fire or a fire-tipped arrow, it would anchor there and become an

abiding island of the blest for the children of man. So, when the seventh year came round, and the island appeared again, St. Brendan launched forth on the waters and steered toward the vision. It melted before him in storms. But by faith he sailed and sailed. For seven years he sailed with his comrades through the homeless ocean, till the enchanted coast came once more in view. They rowed forward. It waited for them, while they landed on what has been supposed to be the shore of our own New England. Soon they found themselves in a great forest, and by a fountain of sweet water. Over the fountain there spread a great tree, on every bough a beautiful bird, and every bird singing a beautiful song. Brendan fell on his knees, and with tears he asked God to tell him what these birds were and whence they came. Endowed with the gift of speech the birds answered, that they were angels who had been driven out of Paradise. "But," they added, "our Lord hath sent us here, out of all pain, in full great joy and mirth, here to serve him on this tree, in the best manner we can."¹

Now, as the world advances, men translate the

¹ The Lyfe of Saynt Brendan, in the Golden Legende, reprinted in the Dublin University Magazine, May, 1852, Vol. xxxix. The present year is the fourth centenary of the printing of the Golden Legend, by William Caxton, at Westminster.

dreams of poetry into the truths of life, and matters of fancy become at last matters of fact. The legend of St. Brendan is the prophecy of America, of her people and her political conditions. Here was that magic island which drew the gaze of generations. Hither, in course of time, came the pilgrims and exiles from far countries, looking for a Paradise of freedom instead of the Paradise of shattered hopes which they had left behind them. These are the shores where the flaming arrow of enterprise has fallen, and the vanishing dream-land has been fixed into an enduring city of refuge. The tree of liberty, which is the tree of life, is over us; and, seated under its shadow with great delight, what, I ask, shall be our song? Shall it not be the gospel of those birds to St. Brendan? "Our Lord hath sent us here out of all pain, in full great joy, here to serve him in the best manner we can."

Those forest-birds sang the Declaration of Independence twelve centuries before men signed it in Philadelphia. And the leading thought, as expressed by the birds and the men, is this: "We are endowed by the Creator with certain inalienable rights of life, liberty, and the pursuit of happiness"; we mean to be happy, and, in order to be so, we mean to serve our Maker and our fellow-men in the best way we are able. Simple as it may seem, this is, nevertheless, the

central principle and the suggestive preamble of our American constitution, namely, that each man has a right to do all in his power to make himself happy; but, as all men are equal, that no one has a right to enthrone himself so far above, or to sink so far below, the main body of the people, as virtually to sever himself from the common weal; that no one has a right to pursue his own happiness without trying at the same time to promote the welfare of his fellows; and that governments exist, and are appointed simply and solely, for the safety and happiness of the governed, and not for the elevation and enrichment of those who govern. This was the vital principle, which became at that time the mighty moral motor of the new civilization. But what is the worth of any principle without a pledge to back it up? With a solemn promise, therefore, the Declaration closes, announcing to the world that, in support of this principle, the subscribers "mutually pledge to each other their lives, their fortunes, and their sacred honor."

Behind this pledge were the fifty-six signers; behind those fifty-six signers were thirteen States; behind those thirteen States were three millions of people. Were there no others included in this covenant? When the builders of Cologne Cathedral drew the first lines, and raised the first stones, they did so with their eyes on the future; they laid their plans on a

great scale, so that the generations to come might have room to enter into their labors and finish what they themselves had begun. Fellow-citizens, those who signed this document signed for more than themselves and their three millions : they signed for you, and for me, and for our children ; they signed for every one who should be born into an American cradle, or plant his foot on American soil ; they signed for the uncounted swarms that send their gathering hum through the hive of our eastern and western democracy, — for all these they signed ; and, therefore, wherever, to-day, this Declaration is being produced and read, — in every State, in every city, in every village, throughout the Union, — there fifty millions of mankind are included in the same inviolable pledge, are summoned to sign the same testament of freedom, are called upon to support the same principle, with their lives, their fortunes, and their sacred honor.

Thank Heaven, then, that if we have no throne or pageantry to touch our political existence into romance, we have, nevertheless, two symbols which appeal with power to the imagination of the free — these are a flag and a Declaration. As long as these two are symbolic and sacred to us, and filled with a real presence, our republic shall not seem to the eyes of Europe, nor even to the distorted sight of some in America, like a bubble on the Atlantic brine. If this

Declaration means anything at all, it means that we are building, not on a summer cloud, but on solid land : it means that we have a country ; that we are a nation ; that there is such a thing as American national character ; that there is something distinct and tangible which makes us one, and that we are bound by the most solemn considerations to conform and to contribute to this by every rational means we can, both for our own sake and for the nations about us.

This is, in substance, my subject. That there is such a social force in the world as the American character may be clearly seen, when we look at that natural law now at work in the midst of us. See the tide of European life, like a mighty gulf-stream, broad and warm, flowing toward us year after year ; see it approach the sweep of this vast western whirlpool ; it enters, is absorbed, incorporated, Americanized. In a generation or two, the old characteristics are changed, even blotted out, and new ones have taken their place. There is that which we may fairly call the American character ; and, somehow or other, this character prevails, and assimilates whatever it receives into itself. In its history and its development the year 1776 is not half so important to us as the year 1883. Then, in '76, we became free ; now we are becoming a nation. And what constitutes a nation ? Not a charter or a decla-

ration. National character makes a nation. For "nation is a moral essence."¹ Nation, moreover, is like culture or character, or anything else which is most precious; it is a thing of growth, not of manufacture. And thus the American type may be seen in its formative process, first under a theocracy, then under a federation, lastly under a republic.

Here, some two hundred and fifty years ago, on the savage shores of an unknown continent, the work was begun. The fates of the world, the nation-making sisters, came together and put the caldron on the fire, and began shredding into it the ingredients, — English beef, Irish potatoes, Scotch oatmeal, Welsh cheese, German cabbage, Italian maccaroni, French candy, Spanish raisins; and, I presume, they also threw in "Boston baked beans." The pot was soon boiling, each element seething, struggling, for itself through two centuries. Then Civil War came and dipped in his ladle, and stirred the compound fiercely, and blew upon it with the breath of his lips; and, when he grew tired, he called his daughter, Peace, and she bent over it with her angel face, and from that hour to this the raging caldron has been calming down into a nation. What sort of a people is yet to emerge from those depths,

¹ Edmund Burke.

when all these elements shall come into a state of final fusion, I can hardly say. You know the Hibernian phrase, "The broth of a boy"; I would extend it, and say, "What a broth of a nation there will then be!"

To hold together such incongruous elements, and amalgamate so many diverse principles, some one predominant form was needed, just as in a building, a statue, or a musical composition, one idea must pervade the whole, and to that idea every part must be subordinated. For, without this, a work of art cannot be said to exist, much less to exert an influence on the beholder or hearer. Now, it may be taken as a general rule that the strongest types of character are the best, and the best are the strongest. A certain character, for instance, appears in a community and impresses itself on those around it. Unconsciously people begin to conform to the model; certain characteristics are established, and bequeathed to succeeding generations. John Winthrop, in the earlier colonial days, and John Adams, in the later, put their mark on the men of their times. The print of the hand of old John Adams is on the wall of every house in Massachusetts. The same principle holds good on a large as on a small scale, and so one community gradually gains an invisible ascendancy over another. The tribe of Judah proved

itself so much stronger than the other tribes that Judah or Jew came at last to be the name for all Hebrews. The city of Rome asserted herself over the rest of the Italian cities till Rome or Roman was synonymous with Italy itself. The little province of Prussia has traced her name with a pen of iron half-way round the Baltic, half-way up the Rhine, and almost all over Germany. The pilgrim plantations of Plymouth and Massachusetts Bay sent out their spirit, and did the same for this continent. Boston became the eye of New England, and New England became the brain of America.

On this point I feel that I must be very particular about my P's and my Q's, that is, in speaking of Puritans and Quakers, and of the part that each of these performed in the making of this nation. Of this, however, I am sure, that New England, dressed, though she might be, in sad-colored brown, was, nevertheless, the first to introduce the fashionable color of freedom into America. Those cold, unlovely men, the Puritans, did the work. It is true, there was no beauty in them that men should desire them. They were contracted; but you must always contract, if you want to get force. And as, in olden times of war, people did not dare to build out their cities wide, but could only build them high, with towering walls and battlements, so these

men, if they were narrow in their notions, were yet lofty as heaven in their aspirations. As I look at their portraits they seem to say, "We do not deign to talk with anything smaller than the Lord." Those men gathered themselves together; with their necessary narrowness they shut out everything unlike themselves; they tolerated no deviations, no vanities, no æsthetic little phantasies; but they laid the outlines of the strongest type, that which was destined in the long run to control all the other types of the old colonial character. And in what ways did they prove their stronger and freer characteristics? First, the New England colonies formed themselves under what were known as *chartered* constitutions, which handed over to the people the chief powers of government; while, on the other hand, the southern colonies were guided by *royal* or *proprietary* constitutions, which withheld from the people these powers. Secondly, in the year 1692,¹ the New England colonies, and I refer especially to Massachusetts, asserted the principles of self-government and self-

¹ So early as the year 1692 the difference of opinion between the mother-country and the colonies, on the great point which afterwards separated them, made its appearance. The Legislature of Massachusetts, employed in establishing a system of laws under their new charter, passed an act containing the general principles respecting the liberty of the subject, which are asserted in magna charta, and in which was this memorable

taxation, sounding the first bugle-note of coming independence. Thirdly, in the year 1775, New England—and by New England I mean Massachusetts—was the first to plant herself in an attitude of armed resistance and to pour out her blood on the earth.

But, coming back to the type which was destined to prevail, I ask, what were some of its constituent elements? To follow the suggestions of Edmund Burke, these were three,—a strong sense of religion, of liberty, and of law.¹ Of the first I need say nothing; you know of what simple, stern, unbending stuff that was made; and, according to the same great authority, not only is religion “a principle of energy” in every case, but the Puritan “mode of professing it was one main cause of this free spirit.” As for liberty, an important distinction should be observed between the forms in which the experience of this political conversion visits different communities. In the southern colonies liberty was regarded rather as a mark of rank; and the infringement of it was

clause: “No aid, tax, tallage, assessment, custom, loan, benevolence, or imposition whatsoever, shall be laid, assessed, imposed, or levied on any of their majesties’ subjects or their estates, on any pretence whatsoever, but by the act and consent of the governor, council, and representatives of the people assembled in General Court.” — *Marshall’s Life of Washington*, ch. vii., note.

¹ Burke’s Speech on Conciliation with America.

resented, as lessening the distance between the slaveholding gentleman and his slave. In the New England colonies every encroachment on their liberty was viewed, not as an invasion of rank (for rank they had none), but as an invasion of rights. The people here were not so slow as to require some overt act of oppression to admonish and awaken them; their higher intellectual sensitiveness enabled them to perceive that there is often a principle to be defended, even where there is not a blow to be returned. Indeed, if I may make something more than a mere verbal distinction between those two great sister words, I would say that in the South it was *liberty*, in the North it was *freedom*, for which the men fought in '76. Liberty is the Latin word; it is the cry of Latin or southern peoples, when the red cap is flung to the skies, and the populace, unarmed with a charter and unclothed with a constitution, let loose their unbridled frenzy in the blood of the barricades. Freedom is the northern or Teutonic word, calm and grave as an anthem, of simple Doric majesty; it speaks of solemn conviction, of deep-brooding thought, of high spiritual passion, of unshaken hold on natural, unalterable right. In other words, Freedom, as distinguished from Liberty, suggests and includes the notion of Law.

And thus it was that Law had found its way, as a

third element, into the New England character, when the hour of the Revolution arrived. The law, we are told, was more generally understood, more sedulously studied, more industriously practised, in New England than anywhere else in the world. The popular mind had become then, what it has been ever since,—decidedly legal, exact, analytical, fonder of dealing in sharp distinctions than in wide, philosophic generalizations. Such a state of things only showed the disposition of the American mind to bring home the law to itself; to explain and apply the law to its own individual case. It reveals what seems to me to be the special genius of the American people; I mean, the sense of law, the perception of design, the faculty of construction, the power of adapting certain means to a given end,—in short, great mechanical and governmental inventiveness. For there are three things in which the Yankee, or New Englander, “whips creation,” — he can run a machine; he can run a hotel; and he can run a government. The claim which he had repeatedly put forward, and which he finally emphasized in the Declaration of Independence in '76, was based on nothing less than on his own nature and its powers to govern himself. In no other lands as in the Northern States is this power so visible. That line of silent men, who range themselves in unbroken and almost apostolic succession

before the post-office window, is always to me a picture of great political significance. Your boys and girls, as they take their places in class, or file off in quiet ranks through the school-room, without a word of censure or command from any one, have impressed me with a deeper feeling of self-administered law than if the legions of Rome had marshalled themselves and passed by. This it is which, from the beginning, has placed New England at the head and front of the American States, — the power of personal self-government.

Liberty, then, in the New England sense of the word, was not exemption from restraint, but freedom to govern one's self, and, with this freedom, the obligation to do so. The question, How are we to rule men? was thus answered by America. But, before this vital principle could fairly root itself in our soil, it had to battle for its existence against a long tempest of sectionalism, which blew from the close of the Revolution to the close of the Civil War. For we should remember how this Declaration leaped forth from the scabbard like a two-edged sword, cutting in a double direction; it cut the ties which bound us to England, and it showed the slenderness of those ties which bound us together. If it spoke to the States of their independence of England, it also spoke to the States of

their independence of one another. Before the Revolution their mutual relationship was that of indifference, and even hostility; after the Revolution the same sectional spirit revived. The state of the American Republic after it had carried the Declaration, and separated from the mother-country, was like that of Protestant Europe after it had translated its Bible, and separated from the Catholic or mother-church. In each case the question was not about authority, but about interpretation. The bewildered farmer in the operetta, when he suddenly finds himself in possession of a *Mascotte*, is made to exclaim: "I don't know what a *Mascotte* is; but, anyhow, I've got one." Uncle Sam might have said the same; he had got a thing called a free constitution, but for his life he could not explain what it was.

Then began the conflict. Up started as many parties in politics as there had been sects in religion in the days of Cromwell, each unfurling its petty flag, each beating its little drum, through every corner of the Union,¹ in the joyous delirium of self-government. The popular mass had fallen by the weight of its own self-will, and had starred the pavement of the national temple into a thousand

¹ For a full enumeration of parties see American Politics, by Thomas V. Cooper and Hector T. Fenton. Bk. II. Political Platforms, pp. 1-68.

fragments. The wildfire of disunion spread everywhere, secession being threatened thrice by the North,¹ and committed once; but then — how awfully! — by the South. Looking, however, more closely into that chapter of eighty years, we may soon discern two great antagonistic principles emerging out of this chaos of party passions, two principles of life, each of which, by itself and in its ultimate issues, was wrong, but both of which were necessary to our salvation in helping the country out of political sectarianism into political dualism, and out of political dualism into political unity. These two principles, I need not tell you, were Jeffersonianism, which asserted State sovereignty, and Hamiltonianism, which pleaded for imperial centralization. An old historian² tells us of an Eastern king, who once visited Augustus Cæsar at Rome, and who wished, for certain reasons, to entertain the emperor by ex-

¹ 1. On the proposed purchase of Louisiana, 1803. 2. On the Embargo, 1807. 3. At the Hartford Convention, 1814. But the doctrine of secession, though adopted three times by the North, had been previously taught by the South in its "Nullification" doctrine of 1798. See "A Guide to the Constitutional and Political History of the United States, 1789-1860." — By Freeman Snow, Ph.D. Part I., pp. 82, 94, 113. *Ibid.*, p. 61.

² Procopius, Bk. II., ch. 12. [Niebuhr's Edition of Byzantine Historians, Vol. II., p. 206.] The name of Abgarus (or Augarus), Toparch or King of Edessa, is already well known through his connection with the so-called "true likeness" (*vera eikon*) of Christ.

hibiting some wild beasts which he had collected. Before introducing these into the Circus Maximus he had distributed around the arena some portions of the soil taken from the haunts of each of the animals. At a given signal they entered; but, as soon as each of them smelt his native earth, he broke from all control, rushed pell-mell in all directions, and ended by squatting down on his own soil. There, gentlemen, you have a practical exhibition of the doctrine of State sovereignty. Scarcely had the world heard the announcement of the coming spectacle of a republic, scarcely had the kings of earth taken their seats and turned their eyes toward the splendid procession of these liberated States as they entered the political arena, when each started away from the main body, and settled down on its own separate fundamental principle.

Hamiltonian centralization was no better. The attempt to accumulate on one spot the vast pile of a central government is a national danger, against which I pray that the sleepless eye and the avenging arm of the people may protect us this day and forever. Such a fabric of power, once raised, exposes government to any sudden attack from without, and to any slow intrigue from office-hunters from within. It weakens, moreover, the strength of

personal self-government, by withdrawing the sense of responsibility, the flow of the life-blood from the extremities to the central brain, till congestion follows, circulation ceases, life departs. If the nation is less than the State, the State less than the town, the town less than the individual, then I am bound to maintain that both centralized government and State government must give way to the one principle that can save a republic; and that is, individual self-government, — the right, and also the duty, of every man to rule himself. What does Montesquieu say? Referring to the different forms of government, and the moving principle proper to each of them, he says that, in a despotism, it is fear; in an aristocracy, it is moderation; in a monarchy, honor; in a republic, virtue.¹ There are certain governments, which, like certain churches or religions, are good only for very good people, but utterly unsuited to flat, unraised, or undisciplined natures. A republic is the best system of government for the good, the worst for the bad.²

¹ Montesquieu, *L'Esprit des Lois*, L. I., ch. 3.

² John White, in his "Planters' Plea," 1630, thus describes the characters which are fit or unfit for a Commonwealth: —

"The persons chosen out for this employment ought to be willing, constant, industrious, obedient, frugal, lovers of the common good, or, at least, such as may be easily wrought to this temper; considering that works of this nature try the undertakers with many difficulties, and easily discourage minds of base and weak temper." Again: "Men nourished up in idleness,

In a free State the welfare of the whole depends on the integrity of every part; just as in the Brooklyn bridge the failure of one half of the cables would bring a ruinous strain on the other half. And therefore, in a free State, where there is no central, overwhelming force to crush and compel, each man is called upon to be toward himself at once judge and jury, officer and executioner, and to carry about within his breast the prison of his own chastisement, and the palace of his own rewards.¹ In a republic, therefore, a man ought to feel himself invested twice over with the dignity and attributes of a man; first by nature, and then by citizenship. He ought to bethink himself that, here in America, he is the member of a mighty Commonwealth, in which no one is to rule, but every one is to obey. It is only a fool like Snug, in "Midsummer Night's Dream," who likes to deck himself out in laws and the semblance of authority that he may show us the next moment how little

unconstant, and affecting novelties, unwilling, stubborn, inclined to faction, covetous, luxurious, prodigal, and generally men habituated to any gross evil, are no fit members of a colony." Quoted by the Rev. George E. Ellis, D.D., in his "Treatment of Intruders and Dissentients by the Founders of Massachusetts." Lowell Institute Lectures; The early history of Massachusetts, p. 78.

¹ We may recall the old saying of Louis XIV., "L'État c'est moi," and reflect that every American citizen is now in the position of "le grand monarque," and can say, "I am the State."

he believes in these; who half puts on the disguise of the lion, and then takes care to proclaim that he is not what he assumes. "Ladies, or fair ladies," cries the clown, "I would wish you, or I would request you, or I would entreat you, not to fear, not to tremble: my life for yours. If you think I came hither as a lion, it were pity of my life: No, I am no such thing; I am a man, as other men are, and, to tell you plainly, I am Snug the Joiner."¹ Fellow-citizens, if the republic condescends to let us touch, and even open, the sacred ark of the covenant, let us remember that, when she allows us to take the law into our hands, she does not expect us to trample the law under our feet.

It is the recognition of this principle of individual self-government, which, more than any other, is to keep us together as a people. We began to be a nation only yesterday. The kingdoms of Europe are not much older than ourselves. It seems but a few hours ago since they were born. Spain was not Spain till the sixteenth century saw the bloody day of Granada. France was not France till the second Francis was crowned king from the English channel to the Gulf of Lyons. England did not lift up her head, and hand in her card as Mrs. Great Britain, till, in 1707, a Scottish and an English Parliament met at

¹ Act III., Sc. 1.

Westminster, by free consent, not by force of arms.¹ And not until 1865 could America, in the latest and largest sense of the word, be called a nation. Then the federation died ; but it rose from the dead as the republic, and the stars in heaven shouted for joy over the youngest child of the morning. A national character, one perfectly distinct in spite of many local varieties, begins to show itself, and is there any that has such a glorious chance in the race between the nations of to-day? Can any boast a better birth and bringing up? The cream of the yeomanry of Elizabeth, drawn off from the fields of southern England, the rude honey of each rustic and religious virtue, culled from every homestead between Plymouth and Dover ; the quaint beauty of almost every name from Cornwall to Kent, transplanted hither and blooming here in a second Dorchester and a second Portland ; the offspring of the men of Devon who broke and blasted the Armadas of Spain ; the children and the grandchildren of those who looked into the face of Shakespeare, shook hands with Raleigh, listened to the wisdom of Bacon, fought round Hampden, heard the voice of Cromwell, and pre-

¹ The first Article of the Treaty of Union was as follows : " That the two kingdoms of Scotland and England shall, upon the first of May next ensuing the date hereof, and forever after, be united into one kingdom by the name of Great Britain."

vailed, — this seed of the strong, sown between these granite hills and along this iron coast; reared by the stress and storm into power, before the wealth of the great west and the gold of the Pacific could dissolve their spirit or tempt them away from the narrow cradle of heroic virtues; brought by how many schoolmasters to maturity; taught by necessity to be inventive; by their contact with the Indians to be shrewd and cautious; by their poverty to be cheerful and industrious; by their abstract religion to be acute and speculative; by their intercourse with incoming races and religions to be tolerant, many-sided, humanitarian; by their dry, electric atmosphere and their extremes of climate, to be quick, mercurial, elastic, — taught by these and their constantly changing situations to acquire a versatility, and a Protean power of self-adaptation, almost unequalled, and then, during the last forty years, pervaded by those two elements which the Puritan character so much needed, — I mean the earnest, loving thoughtfulness of the German, and the fiery, imaginative qualities of the Irish, — these are the materials that are being rapidly wrought into the national compound, and moulding us even now into a character, the most complex and the most cosmopolitan among the nations; and if the law holds good, that the greatest intermixture of blood goes to make the most power-

ful people, I cannot but think that this American type will become a permanent and prevailing force in society, and one of the mightiest, if not the mightiest instrument in the future civilization of the world.

It is no discredit to ourselves to say that we began to exist as a people only yesterday. It takes centuries to make a people. And it is chiefly within modern times, not ancient, that we must look for the great building-up of nations. This is the age of nationalities, — the age in which nations, both old and new, are growing self-conscious and asserting themselves. Everywhere nations are becoming more national. The type is getting stronger instead of weaker. In olden times, while populations were floating and unfixed, a national character had not the same chance of development. To-day, after the lapse of centuries, during which populations have settled down within their boundaries, and have grown together under their laws and institutions, the types are becoming more clear and decided. And why do I dwell so much on this thought of the type? Because every type that is formed arises in response to a certain demand which is made for it. Every great nation that has been called into life at a certain time, and in a certain place, has risen then and there to supply a special want of human society; or, if you like to put this in another way, by studying the

national type of character you may come to learn what was, or what is, the mission of that people to the world. For the principle of the division of labor applies to nations as well as to individuals. Not only has each man and each woman some separate work; the nation also has its special ministry to mankind. Look at the ancients of the earth. The Egyptians were the architects, the Phœnicians were the sailors, the Jews were the prophets, the Greeks were the artists, the Romans were the law-givers. Each of them had some task to perform, some contribution to bring, some element to throw into the civilizations of yesterday and to-day. Turning from the ancients to the moderns, we see the same division of labor. France says, I polish the world; Germany says, I educate the world; England says, I circumnavigate the world; but America says, I liberate the world. This has been the last chord which has been struck on the harp of history. All other wants have been sounded abroad, and nation after nation has risen to answer and fulfil these. The last great want of the world is reserved for our country to supply. That want is freedom. Already this land is the burning focus of ideas. Like the Hebrew hero who sent his foxes into the corn of the Philistines, this Samson of the west catches the flying thoughts of the hour that is

coming, kindles them and sends them abroad, setting the harvest-fields of the world on fire. A little more than a century ago the fathers of our political faith rocked the infant into a giant, and the moment that he stepped from the cradle he sent his voice across the Atlantic to the listening nations of Europe. The people of France heard it, and turned away from the wraith of a dying feudalism, and began to dream of the morning of liberty. Poland awoke and struggled to be free. Ireland stood forth, surrounded by her eighty thousand volunteers, with charter in one hand and sword in the other, at the trumpet-call of Henry Grattan. England, too, shook off her ancient slumber as the echoes of this world-wide murmur were heard within her own parliament, and the Babel of splendid tongues was let loose like the thunders of a gathering torrent. It was, indeed, a moment when "the powers of heaven were shaken." From that hour to this the vibrations of the same voice have travelled everywhere. To-day all over Europe the governments are growing uneasy, and I thank God for it! And where does this uneasiness come from? To the east and to the west of her, America, now the centre of the earth, is sending the electricity of her ideas. Children of the Old World, you may put dungeon walls about your captives; but no dungeon walls can stop the entrance of our liberating lightning.

There is, then, what may be termed the American type, with its free, self-governing characteristics, and this type has its place of ministry in the affairs of men. But we exist as a nation, only so long as we recognize this national character and fulfil this national mission. It was by certain principles and ideas that we began to be a people, and it is only by such principles and ideas that we can remain free ourselves, and help the nations around us to remain or become free. To preserve this type of character which I have tried to explain, it is necessary that every citizen should contribute to its support, inasmuch as this lies at the foundation of our political unity. Whatever tends to invade this character and undermine this unity should be jealously watched by every one of us. With this view let me offer, as I close, two or three simple considerations.

And, first, be true to your ideal. There is a certain form which clothes each of us as an individual, and there are certain forms which descend upon all of us as a nation, and from which we cannot escape. It is affectation in any one to attempt to get away from the imprint of nature, and to be other than what nature has made him. "Which of you by taking thought can add one cubit to his stature?" We must accept and then make the very best of what nature gives us. But perhaps a more serious form of affectation is the

attempt to live in America, and ignore what is American; to praise only what is imported; to gaze with a vulgar and stupid admiration at everything which comes from abroad; and to speak and carry one's self in such a way that people would suppose that, in order to become a gentleman, a man must first cease to be an American, and then translate himself into a foreign "dude." Be true to your ideals. Learn to love and value what America gives you. Take the type, enlarge and improve it all you can. Educate yourselves first to live as good citizens at home, and in so doing you will learn how to be the best travellers abroad.

The danger, however, which I have just mentioned, is trifling compared with the disease which threatens our political unity by destroying all true patriotic feeling whatever. I mean that sordid, self-seeking spirit which pervades our political life, and degrades it into a system of chicanery. How many thousands of our people are come at last to regard politics as a mere scuffle for office! It is as if the nation were riding like passengers on the top of a stage-coach, and flinging down pennies to the little boys that run after; every now and then there is a scramble and a cloud of dust; one urchin gets a kick, and another gets a coin. Politics, as a science, is regulated by the same fixed laws, capable

of the same careful study, and calls for the same nicety in calculation, as mathematics, or mechanics, or any other branch of scientific study. I will go further, and say that political science calls for more of these than any other. And why? Because politics, being largely a moral science, calls for moral principles. A man may be destitute of all morality, and yet know how to use a quadrant or a telescope, and make mathematical measurements of the sun; but you can think nothing, and do nothing, great in politics without principle. The study, therefore, of such a science as this, and the intelligent choice of a government, besides being the first point at which you begin to distinguish the civilized man from the savage, is the highest proof, as well as the severest test, of individual, as well as national, civilization. Men in a savage state meet together for two purposes,—to eat something, or to eat one another; to have a feast or a fight; and, as soon as they have done their tomahawking and scalping, or their gorging and guzzling, they dissolve nationality, and go home. The politician who loves his office more than his country goes down to the level of the savage. Look to it, fellow-citizens; for the state of our political life is the first and the last mark of a pure and healthy civilization.

I can only give a passing glance at the last and

deadliest evil which assails our political existence, and spreads like a contagion through all our society, — this is the greed of gain. The love of money is a good thing, as long as money is a means to a high end, not an end in itself. When money becomes an end to be desired for itself, or, worse, for something inferior to itself, then farewell public virtue and private morality, farewell religion, literature, patriotism, philanthropy. This is the worst of all lusts, because, while it scarcely disturbs the surface of general decency and order; while it has even a moralizing effect in restraining men from grosser vices, — it slowly saps the very pith of manhood, and burns out that community of sentiment, which is incidental with, and inseparable from, patriotism. This is the great danger which lies ahead of our age and nation, — this sunken reef of gold, against which our brittle goodness must be shivered in pieces like a ship of glass, unless it be undergirdled with a new and mightier morality.

But here I pause. Mr. Mayor and fellow-citizens, I have endeavored to point out that we, as Americans, are no longer living as loose, incoherent fragments; but that we are now a nation, and have a certain national character of our own, and that the preservation of this character is necessary both for our own freedom and for the liberation of the world.

As long as a nation fulfils its ministry and preserves its type, it must live. When a nation forgets its great principles and turns away from its ideals, it loses its unity, its political existence, and it dies. Then, as it is with the natural body, the work of decomposition and dismemberment begins, and what was once a glorious life now lies a rotting carcass in the highway of the nations. Wherever such a carcass has fallen, there have the eagles of empire been gathered together. There, indeed, the spoilers assemble and say, Let us bury this dead thing out of our sight. And from such death and burial there is no resurrection.

Let us take warning. It is our boast that we have foiled monarchy in its unjust aggressions on our freedom, and that we now live superior to the idle pomp of a king, the superciliousness of courts, and the empty titles of aristocracy; and that power, which is a trust from God and the birthright of every man, is no longer the exclusive blessing of one or of a few, but the inheritance of all. But beware, fellow-citizens, lest while you exult in such solid victories as these, you may not be insensibly restoring among yourselves what the arms and valor and self-denial of your fathers drove out, — a monarchy, in which wealth is the idol and gold is the king; an aristocracy, in which money is the distinction between man and

man, the deepening line of division and distrust between class and class, until men feel in their hearts that this is a country which is neither worth living in, nor dying for.

But these things must not be; no, they shall not be. If there is a God in history, and I cannot but believe it to be so,—if there is a law which works within and around the law which governs our life,—then let us not suppose that, as a nation, we are here by chance, and for no purpose. Was it for nothing, do you suppose, that the Almighty Father of nations was secretly preparing this great land through centuries of time; that he filled the mountains with silver, and paved the streams with gold; that he spread out the vast lakes and the mighty plains beyond, now covered with cattle and crowned with corn; that he called the giant rivers to uncoil themselves between the hills and the sea; that he locked the gates of this continent for ages, and then, when the fulness of time was come, that he drew back the veil of mystery, and threw it open as a treasure-house to the world? Was it for nothing that men came here from every shore, making this the land of their adoption, and striving to bring the fruits of knowledge and freedom to their highest cultivation? Why was all this brought to pass? Was it not that this might be the New World, that should renovate the Old World, and cancel its

ancient wrongs, and breathe upon its dying life the hopes and inspirations of a better future? Yes, it is for this that we are here and that we have grown into a nation. In the strength of this conviction, let us go forth and prepare a new declaration to-day; not a declaration of independence, but a declaration of inter-dependence, the covenant of an everlasting union among ourselves as a people. Let us rise, then, in the spirit of these principles, and add our signatures to the Declaration which we have heard this morning; let us not sign it with our hands only, let us sign it with every pulse of our hearts, and thereto pledge our lives, our fortunes, and our sacred honor.

CITY OF



BOSTON.

ORDINANCES OF 1883.—CHAPTER 17.

CONCERNING SALARIES OF ASSISTANT INSPECTORS
OF BUILDINGS, SUPERINTENDENT OF CHELSEA
BRIDGE (SOUTH) AND HIS ASSISTANTS, AND
CLERK-HIRE IN CITY REGISTRAR'S OFFICE.

In the Year One Thousand Eight Hundred and Eighty-three.

AN ORDINANCE TO AMEND CHAPTER SIX OF THE REVISED
ORDINANCES.

Be it ordained by the City Council of Boston, as follows:—

SECTION 1. Chapter six of the Revised Ordinances is hereby amended in Section one by striking out of the last line, on page seventeen, the word "four," and inserting the word "five" in place thereof.

Also by striking out of the last line but one, on page nineteen, the words "two hundred," and inserting the words "three hundred" in place thereof; and by striking out all after the words "salary of," in line three, page twenty, and the whole of lines four and five on the same page, and adding the words "each of whom shall be seven hundred dollars" in place thereof.

Also, in Section two, by striking out of the ninth line, on page twenty-two, the word "three," and inserting the word "six" in place thereof.

Also, in Section one, by striking out of the last line but two, of page seventeen, the word "five," and inserting the word "six" in place thereof.

IN COMMON COUNCIL, Nov. 1, 1883.

Passed. Sent up for concurrence.

GODFREY MORSE, *President.*

IN BOARD OF ALDERMEN, Nov. 19, 1883.

Concurred.

HUGH O'BRIEN, *Chairman.*

Approved, Nov. 20, 1883.

ALBERT PALMER, *Mayor.*

A true copy. Attest:

FREDERICK E. GOODRICH,

City Clerk.

[DOCUMENT 168 — 1883.]

CITY OF



BOSTON.

REQUEST

FOR AN

ADDITIONAL APPROPRIATION

FOR

CONTINGENT FUND FOR JOINT COMMITTEES.

OFFICE OF THE CITY AUDITOR,
BOSTON, Nov. 20, 1883.

The City Auditor respectfully represents that there will be needed an additional appropriation for the Contingent Fund for Joint Committees, for the remaining five months of the financial year.

The appropriation for the year was . . . \$15,000 00

The expenditures for the seven months have
been as follows: —

For refreshments . . . \$12,720 97

Carriage-hire . . . 1,544 00

14,264 97

Balance, Nov. 1, 1883 . . . \$735 03

It is estimated that an additional appropriation of six thousand dollars will be necessary to pay the approved bills now in office, amounting to \$2,700, and the expenditures to be incurred prior to May 1, 1884.

JAMES H. DODGE,
City Auditor.

CITY OF



BOSTON.

REPORT

OF

PARK COMMISSIONERS

ON

WEST ROXBURY PARK BOUNDARIES.

To the Honorable the City Council of the City of Boston: —

Under the order approved Nov. 24, 1883, requesting this Board to report "the reason for the delay in obtaining the land and establishing the boundaries of the West Roxbury Park," the Board respectfully reports as follows, —

In a communication to the City Council, reporting progress in the matter of buying lands for the West Roxbury Park, presented in the Board of Aldermen, March 12, 1883, the Board gave its opinion "that it is for the interest of the city that it be authorized to include in its purchases such estates, or parts of estates, immediately adjacent to the present proposed limits as may improve the boundaries of the park," and recommended the passage of the following order: —

Ordered, That the Board of Park Commissioners be authorized to include, in its purchases of lands for the proposed West Roxbury Park, such estates, or portions of estates, immediately adjacent to the present proposed limits as it may deem desirable for improving the boundaries —

which was referred to the Committee on Parks, and subsequently acted upon in Common Council, as shown by the official proceedings of that body, as follows: —

COMMON COUNCIL, March 15, 1883.

Special report of Park Commissioners on proposed West Roxbury and City Point Parks. Accepted. Later in the session, on motion of Mr. Freeman, of Ward 10, the rule was suspended, and on his motion the acceptance of the report was reconsidered, and the same was referred to the Committee on Parks.

COMMON COUNCIL, March 29, 1883.

Mr. Freeman submitted the following from the Committee on Public Parks:—

Report on the request of Park Commissioners (City Doc. 52, referred March 15, inst.), recommending the passage of the following, —

Ordered, That the Board of Park Commissioners be authorized to include in its purchase of lands for the proposed West Roxbury Park, such estates, or portions of estates, immediately adjacent to the present proposed limits as it may deem desirable for improving the boundaries.

Ordered to a second reading and laid over.

COMMON COUNCIL, April 4, 1883.

The order for purchase of estates adjacent to proposed West Roxbury Park, for improvement of boundaries, was considered, and, after discussion, further consideration of the subject was specially assigned to the next meeting, at 8 P.M.

COMMON COUNCIL, April 12, 1883.

Mr. Freeman called up the assignment for 8 o'clock, viz.:—

Order for purchase of estates adjacent to proposed West Roxbury Park for improvement of boundaries.

Mr. FREEMAN. — In consultation with Mr. Whitmore we have agreed that it would be better to amend the existing order rather than pass a new one. I, therefore, offer this as a substitute, which accomplishes the same purpose:—

Ordered, That the order appropriating \$600,000 for the purchase of land for the West Roxbury Park, approved Dec. 16, 1881, and amended Nov. 25, 1882, be and it hereby is amended by adding at the end the words, "or immediately adjoining such limits, as shown on the plans of the Park Commissioners."

After discussion, the order was rejected for want of a two-thirds vote; yeas, 44, nays, 19:—

Yeas — Albree, Bacon, Blume, Bond, Boynton, Bromwich, Burk, Chickering, Cummings, Dean, Doherty, Emery, Farwell, Finnerty, Fisk, Flynn, Freeman, French, Goodman, Greenough, Hathorne, Hichborn, Howland, Killion, Lappen, Lombard, F. P. Maguire, P. J. Maguire, Marley, McLaughlin, Morrison, G. Morse, L. W. Morse, J. A. Murphy, O'Flynn, Orr, Parkman, Smith, Strange, Thomas, Thomes, Trull, Wharton, White, — 44.

Nays — Barr, Barry, Boyle, Cassidy, Denney, Donnelly, Donovan, Foss, Hilton, Houghton, F. J. Murphy, O'Brien, Peterson, Quigley, Richards, Sullivan, Wakefield, Weld, Wise, — 19.

Absent, or not voting — Eddy, Fitzpatrick, Fraser, Gallagher, Lee, Marshall, McNamara, Strater, Whitmore, — 9.

Mr. Freeman moved a reconsideration, and, on motion of the same member, further consideration of the subject was specially assigned to the next meeting, at 8 o'clock.

COMMON COUNCIL, April 19, 1883.

Mr. Freeman called up the special assignment for 8 P.M., viz.: —

Motion to reconsider the rejection of the order for the purchase of estates for improvement of boundaries of West Roxbury Park.

Mr. Freeman gave notice that, if the reconsideration prevailed, he should move to recommit to the Committee on Parks as a solution of the question satisfactory to both sides.

The reconsideration prevailed, and the order was recommitted to the Committee on Parks.

COMMON COUNCIL, April 26, 1883.

Mr. Freeman, of Ward 9, submitted the following: The Committee on Public Parks, to whom was recommitted the report and order relative to improving the boundaries of the West Roxbury Park, respectfully recommend the passage of the order in a new draft, as follows.

For the Committee,

JAMES G. FREEMAN.

Ordered, That the order appropriating six hundred thousand dollars for the purchase of land for the West Roxbury Park, approved December 16, 1881, and amended November 25, 1882, be and is hereby amended by adding at the end thereof the following words: "Said Park Commissioners are hereby authorized to include in their purchases of lands for said parks such estates, or portions thereof, bounded by Blue Hill avenue, Back street, Austin street, Canterbury street, Morton street, Forest Hills street, Walnut street, and Scarborough street, as they may deem desirable for improving the boundaries of said park."

Report accepted and order passed to a second reading.

Mr. Wakefield, of Ward 23, moved to amend the order by striking out the words "Blue Hill avenue, Back street, Austin street, Canterbury street"; and on his motion the order and amendment were specially assigned for the next meeting of the Council, at 8.30 P.M.

COMMON COUNCIL, May 31, 1883.

Mr. Fitzpatrick called up the past assignment, viz.: —

Order to amend the order appropriating \$600,000 for West Roxbury Park by adding thereto authority to purchase estates bounded by Blue Hill avenue, Back street, Austin street, Canterbury street, Morton street, Forest Hills street, Walnut street, and Scarborough street, with a proposed amendment to strike out the four streets first named.

On motion of Mr. Freeman, further consideration of the subject was specially assigned to the fourth meeting from to-night.

COMMON COUNCIL, June 7, 1883.

Mr. Freeman moved to reconsider the vote of last meeting, assigning to June 28 the order concerning the purchase of estates to improve the boundaries of West Roxbury Park.

Mr. Freeman said the order was of no further use, as the Park Commissioners had used the entire appropriation, and there would be no use in changing the boundaries of the park.

The reconsideration prevailed, and, on motion of Mr. Freeman, the order was recommitted to the Committee on Parks.

Under the authority granted, the Board has secured about 324 acres, which, at the prices which have been paid in the settlements already made, will exhaust the appropriation of \$600,000.

The communication from this Board in regard to establishing new boundaries, dated March 12, 1883, is still in the hands of the Committee on Parks, and, until some action is taken thereon, this Board is not in position to estimate what further amount may be required.

Respectfully submitted,

CHARLES H. DALTON,
WILLIAM GRAY, JR.,
HENRY LEE,

Commissioners.

BOSTON, November 26, 1883.

CITY OF



BOSTON.

REPORT OF PARK COMMISSIONERS

ON

APPROPRIATIONS AND EXPENDITURES

FOR

BUSSEY PARK AND ARNOLD
ARBORETUM.

To the Honorable the City Council of the City of Boston:—

In conformity with the rules and orders of the City Council, in relation to appropriations and expenditures, the Board begs leave to submit a statement of the expenditures already made, under the appropriation of \$15,000 for Driveways, Arnold Arboretum, and the necessity of further appropriations therefor, as follows:—

EXPENDITURES.

DRIVEWAYS.

Expenses of construction, labor and materials:—

Labor	\$7,820 56	
Tools and implements	560 11	
Fuel, supplies, cartage, &c.	72 84	
		\$8,453 51

Office building, and yard expenses:—

Building sheds and fence and repairs on office building	\$1,794 03	
Office furniture and supplies	101 98	
		1,896 01

<i>Carried forward</i>			\$10,349 52
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<i>Brought forward</i>	\$10,349 52
Engineering expenses : —	
Expenses of surveying party, stakes, &c.	90 15
	\$10,439 67
Balance, Dec. 3, 1883	4,560 33
	\$15,000 00

The estimated cost of the Driveways is \$75,000.

At the beginning of the year the Board recommended an appropriation of one-half of this sum, or \$37,500, and the City Council appropriated \$15,000, to begin their construction. The balance unexpended will be sufficient to meet the pay-rolls and bills for the month of December. To continue the work now in progress, the Board recommends that a transfer be made from the appropriation for Wood Island Park, East Boston, of \$4,000, which sum will not be required for use in that park during the present financial year, the plans not yet being completed; also, \$1,000 from the special appropriation for Muddy River Survey, and \$1,000 from the appropriation for Park Nursery, Austin Farm, these sums not being needed for their respective departments.

Respectfully submitted,

CHARLES H. DALTON,
WILLIAM GRAY, JUNR.,
HENRY LEE,

Commissioners.

Boston, Dec. 3, 1883.

CITY OF



BOSTON.

AUDITOR'S MONTHLY EXHIBIT.

GENERAL AND SPECIAL APPROPRIATIONS

FOR 1883-84.

OFFICE OF THE CITY AUDITOR, }
CITY HALL, December 4, 1883. }

TO THE HONORABLE CITY COUNCIL:—

GENTLEMEN, — The undersigned, in compliance with Chap. 14, Section 3, Revised Ordinances, herewith presents an exhibit of the General and Special Appropriations for the present financial year of 1883-84, as shown in the books in his office, December 1, 1883, including the December draft, — being eight months' payments of the financial year, — exhibiting the original appropriations; the balances brought forward from the year 1882-83, the amount drawn December 1, the total expenditures, and the balance of each appropriation unexpended at that date.

Respectfully submitted,

JAMES H. DODGE,
City Auditor.

APPROPRIATIONS.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Dec. Draft, including Treasurer's payments in November.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including December Draft.
Advertising ¹			\$1,800 00	\$1,800 00	\$296 85	\$1,496 14	\$303 86	
Architect's Department			13,000 00	13,000 00	1,006 84	9,734 26	3,265 74	
Armories			24,000 00	24,000 00	679 67	14,625 81	9,374 19	
Assessors' Department			105,000 00	105,000 00	7,203 62	84,459 94	20,540 06	
Auditor's Department			17,500 00	17,500 00	1,399 29	10,966 05	6,533 95	
Board of Health, etc., viz.:								
Board of Health			62,000 00	62,000 00	5,656 48	40,533 46	21,466 54	
Evergreen Cemetery		\$454 25	1,500 00	1,993 77	176 80	1,725 43	268 34	
Public Baths			15,000 00	15,000 00	1,134 38	13,527 40	1,472 60	
Quarantine Department			16,400 00	16,400 00	1,012 34	15,788 59	611 41	
Store-house, Gallop's Island ²			10,000 00	10,000 00	438 71	7,933 51	2,066 49	
Boston Harbor			4,500 00	4,500 00	150 00	1,256 76	3,243 24	
Bridges:—								
Bridges			67,000 00	67,000 00	6,952 66	50,048 72	16,951 28	
New Bridge to Cambridge				1,000 00			1,000 00	
Warren Bridge	99,710 55	300,000 00		399,710 55	30,297 46	124,186 69	275,523 86	\$124,476 14
Burnt District	82,348 53			82,348 53			82,348 53	6,363,828 12
Cedar Grove Cemetery	504 52	6,537 67	5,000 00	12,042 19	1,126 77	10,556 28	1,485 91	
Chestnut Hill Driveway			3,000 00	3,000 00	332 75	2,159 29	840 71	
City Debt			768,278 00	768,278 00	768,278 00			
City Loans, Redemption of, Received from Commission- ers		670,000 00		670,000 00		670,000 00		
Revenue \$303,000 00								
Sinking Funds \$367,000 00								
Redemption of City Debt					100,000 00			
Proper								
Redemption of Mystic Water Debt								
Cost of Redemption of ma- tured bonds								
City Hospital			154,500 00	154,500 00	13,282 27	97,421 49	57,078 51	
Carried forward	\$183,603 12	\$976,991 92	\$1,268,478 00	\$2,429,073 04	\$939,424 89	\$1,924,697 82	\$504,375 22	\$6,488,304 26

¹ Transferred from Reserved Fund, \$600.

² Transferred from Reserved Fund, \$10,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Dec. Draft, including Treasurer's payments in November.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including December Draft.
<i>Brought forward</i>	\$183,603 12	\$976,991 92	\$1,268,478 00	\$2,429,073 04	\$939,424 89	\$1,924,697 82	\$504,375 22	\$6,488,304 26
City Registrar's Department			10,900 00	10,900 00	668 22	5,434 60	5,465 40	
Collector's Department			52,900 00	52,900 00	5,499 82	35,202 75	17,697 25	
Common and Public Grounds :								
Common, etc.			63,550 00	63,550 00	3,799 84	57,147 16	6,402 84	
Current expenses \$55,810 62								
Concrete walks 89 95								
Plank walks 893 84								
Flagstaffs, Common, Public Gar- den, and Washington Park 352 75								
Play Grounds								
Curb-stones, Copley Square			5,000 00	5,000 00	43 10	43 10	4,956 90	
Improvement of Copley Square			5,000 00	5,000 00		5,000 00		
Public Garden Pond	9,541 35			9,541 35	4,169 23	6,297 98	3,243 37	
Contingent Funds, viz. :								
Joint Committees			15,000 00	15,000 00	734 10	14,999 07	93	
Mayor			1,500 00	1,500 00	48 00	433 10	1,066 90	
Board of Aldermen			6,600 00	6,600 00	899 90	4,600 51	1,999 49	
Common Council			5,000 00	5,000 00	138 20	3,164 67	1,835 33	
County of Suffolk			360,000 00	360,000 00	30,718 13	232,031 85	127,968 15	
Damages by dogs					15 00	390 50	(\$300.50 provid- ed for.)	
Deeds, Real Estate Advertising, etc.	5,485 33	6,790 12		12,275 45	277 75	7,154 34	5,121 11	
East Boston Ferries :								
East Boston Ferries			210,540 00	210,540 00	24,404 70	167,137 18	43,402 82	
Head-house, North Ferry, Boston side	4,548 88			4,548 88		4,528 19	20 69	
New Ferry Boat			50,000 00	50,000 00	10,322 89	26,190 11	23,809 89	23,479 31
Repairing Eastern avenue Wharf ²			1,500 00	1,500 00			1,500 00	
Engineer's Department			32,000 00	32,000 00	2,278 78	19,235 08	12,764 92	
Fire Department :								
Fire Department			601,043 00	601,043 00	44,289 06	440,060 03	160,982 97	
Fire-Alarm Telegraph			30,052 00	30,052 00	2,344 57	18,075 59	11,976 41	
Health Department			380,000 00	380,000 00	37,349 45	243,946 01	136,053 99	
<i>Carried forward</i>	\$203,178 68	\$983,782 04	\$3,099,063 00	\$4,286,023 72	\$1,107,425 63	\$3,215,769 64	\$1,070,644 58	\$6,511,783 57

¹ Transferred from Reserved Fund, \$5,000.² Transferred from Reserved Fund, \$1,500.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Dec. Draft, including Treasurer's payments in November.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works, May 1, 1883, including December Draft.
<i>Brought forward</i>	\$203,178 68	\$983,782 04	\$3,099,063 00	\$4,286,023 72	\$1,107,425 63	\$3,215,769 64	\$1,070,644 58	\$6,511,783 57
Improved Sewerage ¹	191,013 41	809,000 00		1,000,013 41	114,567 30	867,079 65	132,933 76	4,423,066 24
Incidental Expenses		397 41	60,000 00	60,397 41	1,437 92	45,598 08	14,799 33	
Inspection of Buildings			33,500 00	33,500 00	3,289 10	24,001 81	9,498 19	
Interest			1,562,968 00	1,562,968 00	26,569 06	771,979 32	790,988 68	
Lamp Department			500,000 00	500,000 00	45,199 01	293,022 31	206,977 69	
Law Department			23,000 00	23,000 00	1,928 60	15,024 88	7,975 12	
Liquor License Expenses:								
Police Commissioners					1,989 91			
City Clerk's Department								
Collector's Department		299,254 00		299,254 00		91,521 86	207,732 14	
Treasurer's Department								
Paid State, proportion of receipts, 73,320 50 } Markets					675 50	7,589 23	3,630 77	
Mount Hope Cemetery			11,220 00	11,220 00	836 50	29,686 36	1,521 26	
Northampton-street District	4,559 54	11,905 08	14,743 00	31,207 62	3,333 66		19,621 75	558,378 25
Old Claims	19,621 75			19,621 75			1,067 84	
Overseers of the Poor			2,000 00	2,000 00			45,863 84	
Park Department:								
Park Department	1,514 74		113,750 00	113,750 00	7,241 41	45,863 84	67,886 16	
Office Expenses			5,000 00	6,514 74	307 46	2,477 48	4,037 26	
Muddy River Survey, etc.								
Arnold Arboretum:								
Land	30,598 15			30,598 15			30,598 15	29,401 85
Driveways, etc.			15,000 00	15,000 00	3,163 91	10,439 67	4,560 33	
Charles River Embankment:								
Land	38,000 00	200,000 00		238,000 00		62,487 00	175,513 00	124,487 00
Borings, etc. ²			1,000 00	1,000 00	208 91	977 00	23 00	
City Point Park:								
Land	39,364 70	100,000 00		139,364 70		25,023 29	114,341 41	105,658 59
Filling, etc. ³			3,000 00	3,000 00	636 80	2,155 28	844 72	
Covered Channel, Muddy River	24,287 88		50,000 00	74,287 88	3,846 29	31,951 56	42,336 32	87,663 68
<i>Carried forward</i>	\$552,138 85	\$2,404,338 53	\$5,494,244 00	\$8,450,721 38	\$1,322,656 97	\$5,543,580 42	\$2,907,531 46	\$11,840,439 18

¹ Total Appropriations, \$5,253,000; transferred August, 1876, by authority of an order of July 17, from Reserved Fund, \$40,000, and loans authorized, \$5,213,000; loans negotiated, \$4,516,000.

² Transferred from Reserved Fund, \$1,000.

³ Transferred from Reserved Fund, \$3,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Dec. Draft, including Treasurer's payments in November.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including December Draft.
<i>Brought forward</i>	\$552,138 85	\$2,404,338 53	\$5,494,244 00	\$8,450,721 38	\$1,322,656 97	\$5,543,580 42	\$2,907,531 46	\$11,840,439 18
Covered Channel, Stony Brook	3,192 50			3,192 50		2,014 66	1,177 84	125,199 51
East Boston Park, care, etc.			5,000 00	5,000 00	146 99	196 32	4,803 68	
Muddy River Improvement	4,864 67	100,000 00		104,864 67	3,253 50	16,065 57	88,799 10	36,200 90
Park Nursery, Austin Farm	367 22		1,000 00	1,367 22		93 41	1,273 81	
Public Park, Back Bay:								
Land	21,925 21			21,925 21			21,925 21	444,074 79
Filling, etc.	121,765 48		100,000 00	221,765 48	20,744 99	137,766 90	83,998 58	803,701 42
West Roxbury Park								
Land	64,066 97	300,000 00		364,066 97		110,316 97	253,750 00	346,250 00
Care, etc.			5,000 00	5,000 00	581 60	4,999 95	05	
Paving Department			800,000 00	800,000 00	59,508 04	669,711 74	130,288 26	
Phillips Street Fund, Income	4,358 16			4,358 16			4,358 16	
Police Department			970,324 00	970,324 00	78,712 77	614,634 79	355,689 21	
Printing and Stationery (general)	7,250 00		37,500 00	44,750 00	2,497 02	23,379 27	21,370 73	
Public Buildings:								
Public Buildings	23,340 99	9,418 72	136,650 00	169,409 71	10,087 59	113,426 35	55,983 33	
Engine-house, Bunker Hill Street			25,000 00	25,000 00	2,108 00	9,007 40	15,992 60	
Health Department Stables	2,613 97			2,613 97		2,575 50	38 47	
Library Lot, Dartmouth st. and St. James av., ¹		100,000 00		100,000 00		57,175 00	42,825 00	
Public Institutions, viz.:								
House of Industry			176,200 00	176,200 00	21,431 00	122,293 38	53,901 62	
House of Correction			90,400 00	90,400 00	6,920 40	73,408 22	16,991 78	
Lunatic Hospital			60,000 00	60,000 00	3,539 02	40,732 78	19,267 22	
Marcella-street Home			45,000 00	45,000 00	2,773 87	25,942 75	19,057 25	
Alms-house, Austin Farm			27,000 00	27,000 00	1,592 31	15,926 98	11,073 02	
Alms-house, Charlestown District			10,950 00	10,950 00	1,018 62	8,501 26	2,448 74	
Pauper Expenses			159,000 00	159,000 00	2,809 51	100,686 83	58,313 17	
Steamboat "J. Putnam Bradlee"			14,000 00	14,000 00	714 93	12,731 50	1,268 50	
New boilers, etc., steamboat "J. Putnam Bradlee"			7,600 00	7,600 00		7,599 49	51	
Office Expenses			8,500 00	8,500 00	624 25	5,626 58	2,873 42	
Stone-cutting, Deer and Rainsford Islands			16,000 00	16,000 00	1,958 90	5,909 50	10,090 50	
Marcella-street Home, fences and grounds	1,004 92			1,004 92	268 19	946 82	58 10	
Furnishing Master's house, House of Cor- rection			2,000 00	2,000 00		1,999 60	40	
<i>Carried forward</i>	\$806,888 94	\$2,913,757 25	\$8,191,368 00	\$11,912,014 19	\$1,543,948 47	\$7,727,254 97	\$4,185,149 72	\$13,595,865 80

¹ Loan authorized, \$180,000; loan negotiated, \$100,000.

APPROPRIATIONS, CONTINUED

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Dec. Draft, including Treasurer's payments in November.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncon- pleted public buildings and works, May 1, 1883, including December Draft.
<i>Brought forward</i>								\$13,595,865 80
Public Lands	\$806,888 94	\$2,913,757 25	\$8,191,368 00	\$11,912,014 19	\$1,543,948 47	\$7,727,254 97	\$4,185,149 72	
Public Library	2,093 95		6,000 00	6,000 00	52 80	3,054 91	2,945 09	
Record Commissioners			120,000 00	122,093 95	11,558 37	78,497 78	43,596 17	
Record of Street Names			4,500 00	4,500 00	292 00	2,671 61	1,828 39	
Registration of Voters and Election Expenses:	1,500 00			1,500 00	100 00	300 00	1,200 00	
Registration of Voters								
Election Expenses			25,000 00	25,000 00	3,448 87	19,048 21	5,951 79	
Reserved Fund ¹			15,000 00	15,000 00	5,045 03	6,230 74	8,769 26	
Salaries			139,915 00	139,915 00			139,915 00	
Schools and School-houses, viz.:			37,500 00	37,500 00	3,099 84	25,006 73	12,493 27	
School Instructors								
Salaries Officers, School Committee			1,143,471 60	1,143,471 00	100,756 07	751,556 78	391,914 22	
School Expenses, School Committee			58,940 00	58,940 00	4,901 66	39,213 32	19,726 68	
Gibson School Fund, Income	2,084 95	152 00	255,650 00	255,650 00	11,932 24	182,565 77	73,084 23	
School-houses, Public Buildings				2,236 95		660 79	1,576 16	
Addition to Auburn-street School-house			169,000 00	169,000 00	10,239 02	155,258 34	13,741 66	
Addition to Chapman School-house			5,000 00	5,000 00	108 00	318 94	4,681 06	
Chapman School-house, furnishing	13,591 10			13,591 10	62 13	12,410 96	1,180 14	
Addition to School-house lot, Sumner-street, Dorchester ²			2,000 00	2,000 00	154 35	1,768 37	231 63	
Addition to East Boston High School-house			7,500 00	7,500 00		7,279 50	220 50	
East Boston High School-house, furnishing	30,000 00		5,000 00	35,000 00	4,139 00	6,639 59	28,360 41	
Enlargement of Lexington-street School- house lot			2,000 00	2,000 00			2,000 00	
English High and Latin School Buildings ³	1,547 43		2,300 00	2,300 00		2,300 00		
George Putnam School, completion of				1,947 43			1,547 43	
Grammar School-house, Hammond-park st.: Site			15,000 00	15,000 00	1,234 00	5,654 67	9,345 33	467,830 82
Building								
			78,000 00	78,000 00	45 50	27,106 28	50,893 72	
<i>Carried forward</i>	\$857,706 37	\$2,913,909 25	\$10,283,144 00	\$14,054,759 62	\$1,701,117 35	\$9,054,798 26	\$5,000,551 86	\$14,063,696 62

¹ Transferred to Addition to East Boston High School-house, \$5,000.

Addition to School-house lot, Sumner street, Dorchester, \$7,500.

Advertising, \$600.

Charles River Embankment, Borings, etc., \$1,000.

City Point Park, Filling, etc., \$3,000.

Curbstones, Copley Square, \$5,000.

Foot-bridge, Franklin street, Brighton, \$3,500.

² Transferred from Reserved Fund, \$7,500.

³ Total appropriation, \$469,378.25; loan authorized and negotiated, \$350,000; transfer, \$16,378.25; appropriations, \$103,000.

Grammar School-house site, Minot street, Dorchester, \$8,200.

Primary School-house, Main street, Charlestown, \$1,085.

Primary School-house site, Savin-Hill avenue, \$6,200.

Repairing Eastern-Avenue Wharf, \$1,500.

Stony Brook Improvement, \$7,500.

Store-house, Gallop's Island, \$10,000.

AUDITOR'S MONTHLY EXHIBIT.

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APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Dec. Draft, including Treasurer's payments in November.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including December Draft.
<i>Brought forward</i>	\$857,506 37	\$2,913,909 25	\$10,283,144 00	\$14,054,759 62	\$1,701,117 35	\$9,054,798 26	\$5,000,351 86	\$14,083,696 62
Grammar School-house, Kenilworth street.	34,546 47		7,500 00	42,046 47	9,905 51	41,969 71	76 76	105,235 74
Grammar School-house, Kenilworth street, furnishing			6,200 00	6,200 00	895 34	6,086 59	113 41	
Grammar School-house site, Minot street, Dorchester ¹			8,200 00	8,200 00			8,200 00	
Primary School-house, Harbor View street.	12,000 00			12,000 00	3,112 00	3,459 86	8,540 14	
Primary School-house, Howard-avenue . .	31,317 07			31,317 07	148 70	21,324 69	9,992 38	43,056 62
Primary School-house, Howard avenue, furnishing			3,500 00	3,500 00	343 60	1,959 20	1,540 80	
Primary School-house, Main street, Charles- town:—								
Site ²			42,085 00	42,085 00			42,085 00	
Building	40,030 00		10,000 00	50,000 00	7,108 00	14,512 17	35,487 83	20,512 17
Primary School-house, O street			30,000 00	30,000 00			30,000 00	
Primary School-house, Parker street . . .			6,200 00	6,200 00			6,200 00	
Primary School-house site, Savin Hill avenue, ³ Primary School-house, vicinity of Blossom street:—								
Site			100,000 00	100,000 00	4,375 00	4,375 00	95,625 00	
Building								
School-house, Breed's Island:—								
Site	7,960 70			7,960 70	1,589 55	7,901 32	59 38	8,940 62
Building			9,140 00	9,140 00	724 03	6,048 35	3,091 65	
Sealer of Weights and Measures			250,000 00	250,000 00	19,516 43	229,805 30	20,194 70	
Sewer Department			2,000 00	2,000 00	58 00	976 89	1,023 11	
Sinking-Fund Commissioners						60,301 29	17,647 48	
Soldiers' Relief	77,948 77			77,948 77	7,521 35	46,653 18	1,280 23	301,122 21
Stony Brook Improvement ⁴	433 41		47,500 00	47,933 41	6,335 23	659 71		2,428,248 96
Stony Brook Improvement ⁴	659 71			659 71	132 31	659 71		
Stony Brook Improvement ⁴			30,000 00	30,000 00	2,231 77	18,974 97	11,025 03	
Surveyor's Department			97,000 00	97,000 00		97,000 00		
Temporary Loan			29,500 00	29,500 00		19,165 59	10,334 41	
Treasurer's Department						569,967 53	(\$245,199.23 pro- vided for.)	
Water Works:—								
Cochituate Water Works		324,768 30		324,768 30				
Running expenses					31,571 91			
Interest					7,280 00			
<i>Carried forward</i>	\$1,062,572 50	\$3,238,577 55	\$10,961,969 00	\$15,263,219 05	\$1,806,376 91	\$10,205,939 61	\$5,302,869 17	\$16,970,812 94

¹ Transferred from Reserved Fund, \$8,200.² Transferred from Reserved Fund, \$1,085.³ Transferred from Reserved Fund, \$6,200.⁴ Transferred from Reserved Fund, \$7,500.

APPROPRIATIONS, CONCLUDED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Dec. Draft, including Treasurer's payments in November.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works May 1, 1883, including December Draft.
<i>Brought forward</i>	\$1,062,572 50	\$3,238,677 55	\$10,961,969 00	\$15,263,219 05	\$1,806,376 91	\$10,205,939 61	\$5,302,869 17	\$16,970,812 94
Additional Supply of Water	219,141 48	326,000 00		545,141 48	74,886 48	322,913 18	222,228 30	5,840,658 50
New Main, Cochituate Water Works	9,486 78	70,000 00		79,486 78	21,590 40	68,356 00	11,130 78	338,869 22
Introduction of Meters and Inspection		50,000 00		50,000 00	3,249 82	16,885 38	33,114 62	
Mystic Water Works		108,555 92		108,555 92		130,338 77	(\$21,782 85 provided for.)	
Running expenses					14,709 81			
Interest					365 00			
Proportions paid under contracts								
. 32,990 17								
Mystic Sewer	7,256 02			7,256 02	14,744 60	5,985 73	1,270 29	128,729 71
West Boston and other Bridges			11,500 00	11,500 00	30 20	6,591 16	4,908 84	
Widening and Extending Streets:—					807 72			
Widening Streets			100,000 00	100,000 00	1,006 10	39,858 73	60,141 27	
Broadway Extension	41,284 56			41,284 56	1,813 67	41,069 82	214 74	
Columbus Avenue Extension	3,012 70			3,012 70			3,012 70	1,319,785 26
Commonwealth Avenue Extension	25,727 76			25,727 76			25,716 51	61,987 30
Commonwealth Ave. Extension, Brighton ²						11 25		199,283 49
D Street Extension	8,800 73		10,000 00	18,800 73			18,800 73	46,199 27
Eastern Avenue and Bridge	13,569 79			13,569 79			13,569 79	186,430 21
Foot-bridge, Franklin Street, Brighton ³			3,500 00	3,500 00	215 58	215 58	3,284 42	
Harrison Avenue Extension	3,604 17			3,604 17			3,604 17	126,515 83
Huntington Avenue Extension	49,099 42		40,000 00	89,099 42	17 50	41,352 06	47,747 36	
Camden st. to Parker st. {								54,354 98
Parker st. to Tremont st. {								92,897 66
Massachusetts Avenue ⁴			55,000 00	55,000 00			55,000 00	
Phillips Street Extension			32,300 00	32,300 00	606 00	15,275 00	17,025 00	
Washington Street Extension	24,303 00			24,303 00			24,303 00	1,645,697 00
Widening Commercial Street	12,471 83			12,471 83			12,296 83	487,703 17
Widening Kneeland Street ⁵	6,515 66	1,000 00		7,515 66		7,000 00	515 66	120,484 34
Widening Portland Street	85,352 31			85,352 31		28,511 93	56,840 38	243,159 62
Widening South Street	20,174 92			20,174 92			20,174 92	119,825 08
Widening South Street, East Street to Kneeland Street	21,757 69			21,757 69		55 00	21,702 69	163,297 31
	\$1,614,131 32	\$3,794,233 47	\$11,214,269 00	\$16,622,633 79	\$1,940,419 79	\$10,930,534 20	\$5,959,472 17	\$28,146,690 89
						Less prov. for,	267,372 58	
							\$5,692,099 59	

¹ Total appropriations, \$6,357,886.80; loans negotiated, premium on said loans, and transfer from Reserved Fund, \$6,062,886.80.
² Transferred to Massachusetts Avenue, \$55,000.
³ Transferred from Reserved Fund, \$3,500.
⁴ Transferred from Commonwealth Avenue Extension, Brighton, \$55,000.
⁵ Loan authorized, \$180,000; loan negotiated, \$121,000.

[DOCUMENT 172 — 1883.]

CITY OF



BOSTON.

MONTHLY STATEMENT

OF THE

TREASURY DEPARTMENT.

TREASURER'S OFFICE,
BOSTON, Dec. 4, 1883.

TO THE HONORABLE CITY COUNCIL :—

GENTLEMEN, — The undersigned herewith presents a statement of the receipts and payments of the Treasury Department of the City of Boston for the month of November, 1883, showing the balance of money remaining in the Treasury at the close of the month of November, 1883, and where deposited.

Respectfully submitted,

ALFRED T. TURNER, *City Treasurer.*

Monthly Statement of the Treasury Department.

Balance, October 31, 1883 \$3,801,594 25

RECEIPTS IN NOVEMBER, 1883.

From City Collector, on City Account	\$4,469,178 09	
From City Collector, on County Account	2,151 07	
		\$4,471,329 16
City 4% Loans, —		
Improved Sewerage	\$300,000 00	
Warren Bridge	300,000 00	
		600,000 00
Cochituate Water 4% Loan, Additional Supply of Water		326,000 00
From Sinking-Fund Commissioners, —		
For payment of Debt		100,000 00
Interest on Bank Deposits		3,531 34
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid		2,683 37
		<u>\$9,305,138 12</u>

PAYMENTS IN NOVEMBER, 1883.

On Mayor's general draft	\$2,603,782 60
“ “ special drafts	1,437,500 28
	\$4,041,282 88
Sinking-Fund Commissioners, Revenue, payable under authority of Ordinance on Finance	100,578 42
County of Suffolk, allowed by Auditor of the County of Suffolk	25,765 82
City 5% Loan	11,000 00
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters	2,798 56
Refunded taxes, expenses, costs, etc.	2,304 66
Liquor licenses paid State of Massachusetts, ...	675 50
Refunded Bank Tax	4 83
	<u>\$4,184,410 67</u>

RECAPITULATION.

Balance, October 31, 1883 . . .	\$3,801,594 25
Receipts during November, 1883 . . .	5,503,543 87
	\$9,305,138 12
Payments during November, 1883 . . .	4,184,410 67
Balance, November 30, 1883 . . .	<u>\$5,120,727 45</u>

STATEMENT

For the Financial Year 1883-84, from May 1, 1883, to Nov. 30, 1883, inclusive:—

Balance on hand May 1, 1883 . . .	\$2,564,013 55
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RECEIPTS.

From City Collector, on City Account . . .	\$10,178,885 30	
From City Collector, on County Account . . .	46,762 97	
		\$10,225,648 27
City 4% Loans,—		
Charles-River Embankment, \$200,000 00		
City Point Park . . .	100,000 00	
Improved Sewerage . . .	809,000 00	
Library Lot, Dartmouth St. and St. James Ave. . .	100,000 00	
Muddy-River Improvement, . . .	100,000 00	
Warren Bridge . . .	300,000 00	
West Roxbury Park . . .	300,000 00	
Widening Kneeland Street, . . .	1,000 00	
		1,910,000 00
Cochituate Water 4% Loans,—		
Additional Supply Water, \$326,000 00		
Introduction of Meters and Inspection . . .	50,000 00	
New Main, Cochituate Water Works . . .	70,000 00	
		446,000 00
Temporary Loan, 1883-84 . . .		1,930,000 00
From Sinking-Fund Commissioners,—		
For payment of Debt . . .	\$670,000 00	
Refunded betterments and costs . . .	178 68	
		670,178 68
<i>Amount carried forward . . .</i>		<u>\$17,745,840 50</u>

<i>Amount brought forward</i>	\$17,745,840	50
Premium on City Loans	61,740	00
Interest on Bank Deposits	33,752	98
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid	19,191	49
Tax-title, 249 Webster street	115	30
	<u>\$17,860,640</u>	<u>27</u>

PAYMENTS.

On Mayor's general draft	\$5,964,642	21
“ “ special drafts	6,114,749	60
	<u>\$12,079,391</u>	<u>81</u>
To Sinking-Fund Commissioners, revenue payable under authority of Ordinance on Finance	293,822	78
County of Suffolk, allowed by Auditor of the County of Suffolk	201,022	95
Liquor licenses, paid State of Massachusetts,	73,320	50
City 5% Loan	57,000	00
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters	17,972	29
Refunded taxes, expenses, costs, etc.	7,082	52
Police Charitable Fund	7,000	00
Cedar Grove Cemetery Trust Fund	1,000	00
Mount Hope Cemetery Trust Fund	1,000	00
Old claims, Mayor's drafts, of 1882-83, etc.,	932	16
Refunded betterments and costs	178	68
Tax-title, 249 Webster street	115	30
Stoughton School Fund Income	69	00
Refunded Bank Tax	4	83
	<u>\$12,739,912</u>	<u>82</u>

RECAPITULATION.

Balance, May 1, 1883	\$2,564,013	55
Receipts from May 1 to November 30, 1883, inclusive	15,296,626	72
	<u>\$17,860,640</u>	<u>27</u>
Payments to November 30, 1883, inclusive	12,739,912	82
Balance, November 30, 1883	<u>\$5,120,727</u>	<u>45</u>

Balance, November 30, 1883, as per preceding and monthly statements, as follows : —

Money deposited in the following banks : —

Blackstone National Bank	\$100,000 00
Bunker Hill National Bank	100,000 00
Continental National Bank	100,000 00
Everett National Bank	50,000 00
Faneuil Hall National Bank	100,000 00
Fourth National Bank	75,000 00
Lincoln National Bank	75,000 00
Market National Bank	100,000 00
Massachusetts National Bank	100,000 00
Maverick National Bank	100,000 00
Merchandise National Bank	50,000 00
Metropolitan National Bank	75,000 00
Monument National Bank	50,000 00
Mt. Vernon National Bank	50,000 00
North National Bank	100,000 00
Shawmut National Bank	100,000 00
National Bank of the Commonwealth	100,000 00
“ Eagle Bank	100,000 00
“ Hide & Leather Bank	100,000 00
“ Bank of North America	100,000 00
“ Bank of the Republic	100,000 00
“ Revere Bank	100,000 00
“ Rockland Bank	75,000 00
“ Security Bank	50,000 00
	\$2,050,000 00
Merchants' National Bank	1,663,428 09
National Bank of Redemption	380,084 25
Howard National Bank	418,126 42
Globe National Bank	410,033 85
National Bank of Commerce, pay-roll tail- ings account	5,334 70
	\$4,927,007 31
Cash and cash vouchers in office	193,720 14
	<u>\$5,120,727 45</u>

ALFRED T. TURNER,
City Treasurer.

CITY OF



BOSTON.

SPECIAL REPORT

OF THE

BOSTON WATER BOARD

TO THE

CITY COUNCIL,

DECEMBER 6, 1883.

OFFICE BOSTON WATER BOARD,

BOSTON, December 6, 1883.

To the Honorable the City Council: —

Under date of June 5, 1883, the Boston Water Board was requested to "report in print, monthly, the condition and purity of the water supply; the consumption of the previous month; the progress of the work on Basin 4; the progress made in improving the other basins; the condition of the high-service, and what has been done in regard to preventing a contamination of the supply; together with such other information as can be given without interference with the working of the Department, or the proper prosecution of the work under charge of said Board."

A monthly report has not been rendered, in consequence of the delay in finishing the various experiments in progress. We now have the honor to present the following report, which covers the period since the date of our last report: —

CONDITION AND PURITY OF THE WATER SUPPLY.

The consumption from the Sudbury and Cochituate works, during the past month, has been 29,080,000 gallons per day, a reduction of eight per cent. from that of the corresponding

month of 1882. The Sudbury river reservoirs contain at present 245,000,000 gallons, as follows: *No. 1, 125,000,000; No. 2, none; No. 3, 24,000,000; Farm Pond, 96,000,000 gallons.* The yield of the river for the month has been 15,390,000 gallons per day. 19,350,000 gallons per day has been sent to Chestnut-Hill reservoir, which, with 15,000,000 gallons allow to flow in the river, gives 20,850,000 gallons per day drawn from the Sudbury source. The loss in storage has been 163,800,000 gallons.

The loss of storage in Lake Cochituate has been 162,500,000 gallons. The yield of its water-shed, 137,500,000 gallons, or 4,580,000 gallons per day. Mystic Lake has remained at about the same level throughout the month, the yield being equal to the consumption, or about 5,940,000 gallons per day.

The pumping machinery at Mystic Lake is ready for use, but the rains, during the past month, have been sufficient to maintain the lake at a sufficiently high level to do away with the necessity of pumping.

The pumping machinery at Lake Cochituate has been in operation since the 26th ult.

The figures given show that at the rate the Sudbury-river works have been drawn upon during the past month the amount in store would be exhausted in ten days.

The yield of the river during the past month, owing to frequent rains, has been comparatively large, but is at present less than one-half the average yield for the past month. Assuming that the amount to be derived from the river will be 7,000,000 gallons (a large estimate), this quantity with the amount now in store would furnish the daily quantity required during the past month for only nineteen days. It will be seen, therefore, that for the balance of the supply required, reliance must be placed upon Lake Cochituate. From this source, by pumping, enough can be obtained to supplement the Sudbury supply for the next twenty days, after which time the Sudbury-river storage will be exhausted, unless we have rains or melted snow to replenish it. The sole reliance for the city's supply will then be the amount which can be pumped from Lake Cochituate, together with the quantity the Sudbury river may furnish. The lake cannot furnish more than 20,000,000 gallons per day, as the conduit is not of sufficient capacity to run it, and even that amount is dependent upon the constant running of the temporary pumping machinery. It will be seen that the outlook for supplying the city at its present rate of consumption for the next sixty days is extremely precarious.

Freezing weather will reduce the streams to a minimum

flow, and every inch of ice that forms reduces the available supply.

Every means should be adopted to decrease the consumption by enforcing a rigid economy in the use of water, especially as any accident to the pumping machinery at the lake would at once necessitate the placing of the city upon a short supply.

The quality of the water at present, and for some time past, as shown both by taste and chemical analyses, has been unusually good, indeed much better than for several years. This is accounted for in part by the long-continued drouth and consequent lack of surface drainage. The water is bright and colorless in appearance, and freer than for many years of the defilements detrimental to health. This is a matter for general congratulation, in which the Water Board may properly join, though it claims no special credit for so satisfactory a result.

In October last the Board caused the water at several different points to be chemically analyzed by E. S. Wood, Professor of Chemistry in Harvard University, and the results are herewith appended. It will be observed that the amount of dangerous elements, such as *albuminoid ammonia*, and *chlorine*, is unusually small.

WATER ANALYSIS.

[Figures express parts per 100,000 of Water.]

Service, Corner Warren and Dudley Streets, Roxbury.

Free Ammonia.	.	.	.	.	.	.	0.0021
" Albuminoid " Ammonia	.	.	.	.	.	.	0.0276
Chlorine	.	.	.	.	.	.	0.48
Residue : —							
Fixed	.	.	.	.	.	.	1.70
Volatile	.	.	.	.	.	.	3.80
Total	.	.	.	.	.	.	5.50
Hardness	.	.	.	.	.	.	1°
Date of collection	.	.	.	.	.	Oct. 2, 1883.	
Transparency	.	.	.	.	.	.	clear.
Color	.	.	.	.	.	.	light yellow.
Odor	.	.	.	.	.	.	none.
Characteristics on Ignition	.	.	.	.	.	.	considerable blackening.
Nitrates	.	.	.	.	.	.	absent by ferreous sulphate test.

Chestnut-Hill Reservoir — Effluent Gate-house.

Free Ammonia	.	.	.	.	.	.	0.0019
" Albuminoid " Ammonia	.	.	.	.	.	.	0.0246
Chlorine	.	.	.	.	.	.	0.46

Residue : —

Fixed	.	.	.	.	.	.	.	2.60
Volatile	.	.	.	.	.	.	.	3.00
Total	.	.	.	.	.	.	.	5.60
Hardness	.	.	.	.	.	.	.	1°
Date of collection	.	.	.	.	.	.	Oct. 1, 1883.	
Transparency	.	.	.	.	.	.	clear.	
Color	.	.	.	.	.	.	light yellow.	
Odor	.	.	.	.	.	.	none.	
Characteristics on Ignition	.	.	.	.	.	.	considerable blackening.	
Nitrates	.	.	.	.	.	.	absent by ferreous sulphate test.	

Service, Harvard Medical College, Boylston Street, Boston.

Free Ammonia	.	.	.	.	.	.	.	0.0037
"Albuminoid" Ammonia	.	.	.	.	.	.	.	0.0248
Chlorine	.	.	.	.	.	.	.	0.44
Residue : —								
Fixed	.	.	.	.	.	.	.	1.70
Volatile	.	.	.	.	.	.	.	4.40
Total	.	.	.	.	.	.	.	6.10
Hardness	.	.	.	.	.	.	.	1°
Date of collection	.	.	.	.	.	.	Oct. 1, 1883.	
Transparency	.	.	.	.	.	.	clear.	
Color	.	.	.	.	.	.	light yellow.	
Odor	.	.	.	.	.	.	none.	
Characteristics on Ignition	.	.	.	.	.	.	considerable blackening.	
Nitrates	.	.	.	.	.	.	absent by ferreous sulphate test.	

Service, 453 Hanover Street, Boston.

Free Ammonia	.	.	.	.	.	.	.	0.0011
"Albuminoid" Ammonia	.	.	.	.	.	.	.	0.0244
Chlorine	.	.	.	.	.	.	.	0.46
Residue : —								
Fixed	.	.	.	.	.	.	.	2.10
Volatile	.	.	.	.	.	.	.	3.10
Total	.	.	.	.	.	.	.	5.20
Hardness	.	.	.	.	.	.	.	1°
Date of collection	.	.	.	.	.	.	Oct. 2, 1883.	
Transparency	.	.	.	.	.	.	clear.	
Color	.	.	.	.	.	.	light yellow.	
Odor	.	.	.	.	.	.	none.	
Characteristics on Ignition	.	.	.	.	.	.	considerable blackening.	
Nitrates	.	.	.	.	.	.	absent by ferreous sulphate test.	

Service, 4 Thompson Street, Charlestown, Mass.

Free Ammonia	.	.	.	.	.	.	0.0005
" Albuminoid " Ammonia	.	.	.	.	.	.	0.0208
Chlorine	.	.	.	.	.	.	3.26
Residue :—							
Fixed	.	.	.	.	.	.	8.50
Volatile	.	.	.	.	.	.	4.20
Total	.	.	.	.	.	.	12.70
Hardness	.	.	.	.	.	.	3½°
Date of collection	.	.	.	.	.	Oct. 2,	1883.
Transparency	.	.	.	.	.	.	clear.
Color	.	.	.	.	.	.	none.
Odor	.	.	.	.	.	.	none.
Characteristics on Ignition	.	.	.	.	.	.	considerable blackening.
Nitrates	.	.	.	.	.	.	absent by ferreous sulphate test.

Boston Waters from Service Pipes.

LOCATION.	Free Ammonia.	" Albuminoid " Ammonia.	Chlorine.	RESIDUE.			Hardness.
				Fixed.	Volatile.	Total.	
C. H. Reservoir, Gate-house . .	0.0019	0.0246	0.46	2.60	3.00	5.60	1
Boylston Street	0.0037	0.0248	0.44	1.70	4.40	6.10	1
453 Hanover Street	0.0011	0.0244	0.46	2.10	3.10	5.20	1
Cor. Warren and Dudley Streets, Roxbury	0.0021	0.0276	0.48	1.70	3.80	5.50	1
47 Thompson St., Charlestown .	0.0005	0.0208	3.26	8.50	4.20	12.70	3½

E. S. WOOD.

WORK AT BASINS 2, 3, AND 4.

The work upon each of these basins has been pushed forward with every possible energy. At Basin No. 2 a great deal of work has been accomplished. The weather has been exceedingly favorable, and every advantage has been taken of this fact; it may safely be said at this date that the elimination of shallow flowage from this basin has been practically accomplished.

The favorable weather rendered it possible to begin operations at Basin 3, and the work was accordingly commenced about October 1st. It has progressed rapidly up to this time, and considerable has been accomplished. The work,

both at Basins 2 and 3, has been under the immediate supervision of the Superintendent of the Western Division, Mr. Desmond Fitzgerald, who has performed the duty very satisfactorily.

At Basin 4 the work has not lagged for a moment, and the progress made is very creditable to the officers in charge, as well as gratifying to the Board. The work must necessarily be narrowed to almost a stand-still for the next three months, but as much will be done during the winter as due regard to economy and efficiency will permit. The work is in the immediate charge of W. F. Learned, as Resident Engineer and Superintendent.

The work upon the Farm-pond conduit has been commenced, and is now in progress. Likewise that upon the extension of the 48-inch main on Commonwealth avenue, the 20-inch main, with siphon, on Warren bridge, and the rebuilding of a section of the Mystic conduit. The work is also progressing on the new boilers for the Mystic pumping-station. All of these matters are under the general supervision of Mr. Henry M. Wightman, as Engineer and General Superintendent, whose report is herewith submitted:—

OFFICE OF CITY ENGINEER, CITY HALL,
BOSTON, Dec. 1, 1883.

Hon. WM. A. SIMMONS, *Chairman of Boston Water Board*:—

DEAR SIR, — The following statement of the present condition, as to progress, of the various works now being carried on upon the Sudbury and Cochituate, and Mystic supplies; of the condition of the Highland high-service works, and the necessity for taking immediate steps towards building the proposed new works, and of the results accomplished in the prevention of waste, as shown by the use of the wastewater detectors and inspection, are submitted in accordance with the request of your Board.

FARM POND CONDUIT.

The first contract for this work, consisting of the pile and timber-work for the trestle from which the filling across the pond is to be done, was advertised for proposals, October 9, 1883. Bids were received, varying from \$44,061, the highest, to \$26,551, the lowest. Mr. George H. Cavanagh, of Boston, was the lowest bidder, and the contract was awarded to him by the Water Board.

Mr. Cavanagh commenced work on the 7th of November, and the first estimate under his contract amounts to \$1,491, for work done and materials furnished to November 25th.

The work under contract comprises the building of a pile trestle-work, about 1,900 feet in length, from which the gravel for forming the embankment to enclose the masonry conduit, across the pond is to be dumped. The mud is, in places, of considerable depth, and where it is not, it would be unsafe to place a masonry structure upon filling which would be liable to settle to some extent, if built upon so soon as it is proposed to build the contemplated conduit. Enough piles are therefore used in building the trestle to constitute, when the filling is done, a foundation for the conduit, and involving only the cutting of them off, and recapping at a lower grade.

The filling will come from a bank near the western end of the trestle, from which the right to take it has been purchased by the Water Board.

Arrangements are now in progress for contracting for the work of filling, which will require the use of a narrow or broad-gauge railroad plant by the contractor. The filling can be commenced as soon as the trestle extends a sufficient distance into the pond, which will be in a week or two; and can continue as fast as the trestle advances. It is the intention to have the filling done so that the masonry conduit can be commenced early in the next season, and completed during the year.

The amount appropriated for this work was \$160,000; amount expended to December 1, \$1,588.07.

BASIN NO. 2.

The work of deepening the shallow flowage, and excavating loam and muck from this basin, has been continued without interruption since the date of the last report. The continued dryness of the season has permitted the work to proceed at such rate of progress as to ensure the completion of the deepening of all shallow places in this basin before the advent of extreme cold weather.

The removal of the loam and muck, authorized by the favorable action of the City Council, upon the recommendation in Water Board's last report, has been energetically prosecuted, both by day's labor and by contract.

There have been employed by day's labor an average of 200 men and 35 teams, and the contractors have had nearly as large a force.

The quantity of material removed has been about 130,000 cubic yards. Of this amount about 67,000 cubic yards were handled by day's labor, and the remainder by contract.

The banks where the basins have been deepened have been graded generally to a slope of 3 horizontal to 1 vertical, and, where stones were abundant, have been riprapped, to prevent washing.

The work has covered an area of about 45 acres.

The appropriation for the work was \$80,000; amount expended to December 1, \$55,053.33.

BASIN No. 3.

The early exhaustion of Basin No. 2 rendered a heavy draught of water from Basin 3 a necessity in order to keep up the city's supply during the continuation of the almost unprecedented drought of the present season. In the latter part of September enough of the shallow flowage was uncovered to render it practicable to commence the work of deepening it.

In accordance with the desire of the Water Board, to do all the work possible during the present year, although it was somewhat late in the season to begin, an engineering force was placed in the field, and the surveys made preliminary to commencing active operations. The location selected for the commencement of the work was at the upper end of the basin, near the edge of the town of Southboro'.

There were no facilities at this point for boarding the men in farm-houses or existing buildings, and the erection of temporary buildings for the accommodation of the men and teams was necessary. Considerable time was required to erect these buildings and put them in running order, and during this time only a small force was employed.

The force was gradually increased from October 4, the date of commencement of the work.

The average force employed has been 117 men and 47 teams.

The area at present covered by the force is about 28 acres, and about 34,000 cubic yards have been removed.

Amount of the appropriation for this work was \$125,000; amount expended to December 1, \$19,560.72.

BASIN No. 4, ASHLAND.

Since the date of the last report, a large force of men and teams has been employed on the various portions of this work, and the railroad plant has been increased to two steam-shovels, four engines, and one hundred dump-cars. A large amount of material has been moved by the railroad plant, and deposited either on the embankment or the waste-dump,

or delivered to the Boston & Albany Railroad Company, for transportation to the Back Bay Park.

The quantity of material used in forming the embankment from September 1st to November 15, aggregates 44,500 cubic yards, and of this amount 30,000 cubic yards were transported by rail and the remainder by teams. At the rate of progress during the last month, the embankment could probably be finished during the next year.

The quantity of muck and poor loam deposited on the waste dump amounts to 35,000 cubic yards. This material is first placed in piles along the railroad track, by means of men and teams, and is then loaded into cars by a steam-shovel and transported by rail to its place of final deposit, the waste-dump. Judging from the areas yet unstripped of loam and muck, it will not be difficult to complete this work during next season; but with the quantities already piled up for transportation by rail, unless the winter should be a mild one, and thus permit the work to be carried on without serious interruption, it would require an increase of the railroad plant, or night, as well as day work, to remove it from the basin.

The transportation of loam to the Back Bay Park was commenced November 7, and is progressing at the rate of about 600 cubic yards per day.

Considerable work has been done in deepening the shallow flowage of this basin, and, as there is not a very large area to be treated, it will be easily completed during the next season. About 2,000 lineal feet of the shores have been graded, so as to give eight feet of water at the foot of slopes of about three horizontal to one vertical.

All the masonry of the gate-chamber and overflow is completed, and all the work of this character remaining to be done consists of the construction of a small building for the protection of the gates and machinery in the gate-chamber.

In order to keep the basin free from water, which, in case of a heavy flow in the brook, would stop the work of removing the muck and loam, pumps have been erected to force the flow of the brook through the outlet pipe built through the embankment of the dam; these pumps are of sufficient capacity to dispose of the flow of the brook when it is within reasonable limits. This mode of drainage, after due consideration, has been thought preferable to the construction through the embankment of an open masonry channel, which, although of larger capacity, would have impaired to a certain extent the homogeneity of the filling, and delayed the completion of certain work connected with the construction of the dam.

As at present arranged, if the stripping of all the loam and muck, and its removal from the basin, is accomplished, and the work of deepening the shallow flowage is completed in 1884, it would be entirely practicable to partially fill the basin during the winter and spring of 1884-85, even if the dam should not be wholly completed. The gravel to complete the dam in case of such filling of the basin would have to come from a somewhat higher level than at present, but there is an ample quantity of it at a much higher level.

The work on the dam is now stopped for the winter, and all the masonry and cement portions of it which might be injured by freezing are covered with earth, or otherwise protected. The removal of the loam and muck is still being prosecuted, but the team-work will soon have to be stopped, as it cannot be economically carried on during freezing weather.

In view of the present condition of the water supply, it is obvious that the work connected with the building of this basin must be commenced as early as possible next spring, and must be prosecuted, during the year, with increased energy, in order to put it in condition for service in the year 1885.

As stated in the last report the total appropriations for this basin amount to \$650,000. Of this sum there had been expended to December 1, 1883, \$444,193.82, and it is evident from the quantity of work yet to be done that it cannot be accomplished for the sum remaining, even if the strictest economy was exercised.

The cost of the dam is considerably in excess of the original estimates, but owing to the non-receipt of the construction accounts, since August 15, it is not possible to estimate, with any degree of accuracy, the probable cost of the work remaining to be done.

The amount of loam, and especially of muck, to be excavated, will fall short of the estimated quantities, but the saving effected in that direction will not compensate for the excess of cost of the other portions of the work.

HIGHLAND HIGH-SERVICE WORKS.

Although there has been a material improvement in the capacity of these works, due to the large reduction of waste, the subject of building new works is still of pressing importance.

The necessity for the extension of the high service to the districts inadequately supplied from the low service still exists. Complaints from the Fire Department of inadequate

supply in the higher portions of the low service are of frequent occurrence, and although in some of the sections complained of connections might be made with the high service for use in case of an emergency, such connections are a source of danger to the supply in other sections, and are of doubtful expediency. If the high service was extended to the districts now inadequately supplied, its capacity would fall at once far short of the demands upon it, and these districts must, therefore, continue in their present unsatisfactory condition until some action is taken which will result in new and greatly increased facilities for high-service supply.

There are other reasons why some definite action should be taken by the City Council upon this important matter, among which may be mentioned the uncertainty which this department is under with regard to the system of piping for districts into which the pipes are yearly extended to accommodate the growth of population.

It has been heretofore assumed that when the new high-service works were built, they would be constructed upon the plan as proposed by the former City Engineer, Mr. Jos. P. Davis, as it is not believed that any substantial improvement of that plan could be made. The additions and extensions of the pipe system upon this basis are already large and yearly increasing in extent; yet if it should be decided to adopt some other plan, much unnecessary expense would have been incurred.

The location of the present works is very undesirable, and the space occupied by them cannot be further utilized by the introduction of more machinery.

The Brighton high-service supply is a source of complaint, and it would not be good policy to expend the amount of money necessary to remedy the difficulty complained of, so long as it is probable that the new high-service works will be built within a reasonable time.

It is true that this subject has been before the various water-boards and city councils for many years (since 1875), and the citizens are still supplied from the present high-service works because their capacity has been from time to time increased by temporary expedients, but these expedients have been practically exhausted, and the last one, that of reduction of the waste, is now on trial.

The reduction in the consumption which has been effected may enable the pumps to supply the demands upon them for such time as may be necessary to build new works, but it is not believed that it will be possible, in view of the increasing legitimate demands upon the service that they can be made to

do it for a longer time. It should be remembered that this reduction of the consumption cannot be expected to continue after the advent of freezing weather, as the saving effected is not a cumulative one, like that on the low service, where the water saved in summer remains stored in the reservoirs for use during the excessive demands of the winter. The pumps of the high-service must respond to the demands made upon them at all times, and, as it is inevitable that with the present defective system of plumbing in existing houses the water will be wasted during cold weather, to prevent the freezing of pipes, it is to be expected that the pumps will soon have to be run again at their full capacity, if not beyond it.

In my last report a table was given showing the consumption for the past year with rate of increase over preceding year. For the purposes of comparison, and to show the saving effected by the prevention of waste, I have given the former figures with the addition of those for the succeeding months to date :—

January, 1883,	3,158,500	gallons,	16.5	per cent.	increase.
February, “	3,093,900	“	13.5	“	“
March, “	3,238,500	“	26.9	“	“
April, “	2,949,400	“	14.5	“	“
May, “	3,081,150	“	10.4	“	“
June, “	3,273,080	“	7.6	“	“
July, “	3,281,000	“	8.6	“	“
August, “	3,168,000	“	5.1	“	“
September, “	2,538,900	“	8.7	“	decrease.
October, “	2,332,000	“	12.8	“	“
November, “	2,348,767	“	12.9	“	“

CURRENT WORK.

Extension of the 48-inch Main.

The laying of the extension of this main from the junction of Commonwealth avenue and Beacon street was commenced September 12, and has been completed through Commonwealth avenue to West Chester park. The laying of the 30-inch main in West Chester park, connecting the 48-inch with the 40-inch in Beacon street, has also been completed, and the laying of the 24-inch connecting main through West Chester park to Tremont street is nearly completed.

Delay of the contractors for furnishing the wrought-iron pipes for crossing the bridges over the Boston & Albany, and Boston & Providence Railroads has prevented the completion of this work at earlier date. These pipes are, how-

ever, now being laid, and in a short time the connections will be completed and the main in use.

These mains are important factors in the equalization of head in the southern and western sections of the pipe system, although the advantages to be ultimately derived from them will not be fully realized until the 48-inch main is extended further into the city. The laying of these mains will, however, postpone, in all probability, the further extension of the 48-inch for several years.

The appropriation for the work, \$79,486.78, of which amount \$68,356 has been expended.

New 20-inch Main, with 24-inch Siphon, on Warren Bridge.

This work was under contract at the date of the last annual report, and considerable progress had been made by the contractors for the siphon and pile supports for the pipes.

The most difficult portion of the undertaking was the laying of the siphon across the draw-way of the bridge; but it was successfully accomplished on September 29th, and since that date the entire work has been completed, and the main is now in use.

The appropriation for the new main, including siphon, etc., was \$20,000, of which amount \$10,458.21 has been expended; but final payments have not as yet been made upon some of the work.

New Boilers for Mystic Pumping-Station.

There has been considerable delay in commencing work on these boilers. The contract for them was made on August 15, but the contractors were obliged to wait for a longer time than they had expected for the steel, and after it was rolled the testing of the samples could not be done immediately, as the use of the government testing-machine at the Watertown Arsenal could not be obtained until other work on hand had been completed.

The first lot of samples which were tested did not give results which were in accordance with the terms of the contract, and a large portion of the plates was rejected. A new lot of the plates has since been rolled, and the samples from them are now being tested.

If they prove satisfactory, work on the boilers can be at once commenced by the contractors.

No inconvenience has been experienced at the Mystic Pumping-station by reason of the non-completion of these

boilers, as the old boilers, although condemned as not worth any further repairs, have continued to do all the duty required of them.

Rebuilding a Section of the Mystic Conduit.

This work was in progress at the date of the last report, and considerable preliminary work had been done.

A section of the conduit, 150 feet in length, has been taken out, and a new section built to replace it. The new structure is very much stronger than the old, and is, in fact, the strongest portion of the line.

The new masonry was completed November 27, the removal of the 30-inch pipe laid around the location of work, and the back-filling of trenches is now in progress, and will be done in a short time.

Waste-Water Detectors.

The operation of the waste-water detectors, which consist of the Deacon meters and Church stopcocks and gauges, was, in accordance with the request of your Board, placed in charge of Mr. Dexter Brackett, assistant-engineer, under whose immediate direction the Deacon meters had been used in Charlestown and East Boston. I transmit herewith Mr. Brackett's report of the results obtained by the use of these instruments, which shows conclusively their value for the purpose of detecting waste.

Mr. Brackett's report covers the subject so completely that I can add but little to the information therein contained. I desire, however, to call the attention of the Board to the importance of procuring more of the Deacon meters before next season, as the work of inspection has been at times seriously delayed on account of the small number of these instruments in use. It is impracticable to use these meters during freezing weather, and the inspectors of the division of inspection and waste will have to be relied upon to control the waste during the winter season.

The Church stopcock and gauge are shown by Mr. Brackett's report to be an efficient means for detecting waste in buildings; but whether or not this form of stopcock is of sufficient value to compensate for its cost, which is largely in excess of that of the ordinary stopcock, can only be determined by a longer trial.

The saving of water so far effected by the use of the waste-detectors in connection with the division of inspection

and waste is an important one and demonstrates the feasibility of reducing and maintaining the consumption within reasonable limits.

Yours respectfully,

HENRY M. WIGHTMAN,

Engineer and Gen. Supt. Boston Water Works.

POLLUTION OF THE SUPPLY.

Since the date of our last report the Board has been steadily pursuing the question of a proper solution of the water contaminations both at Mystic lake and Pegan brook. Elaborate reports have been received upon the subject, and various experiments have been made with reference to the best solution of the problem. The Board has under advisement several propositions with regard to treating the Mystic sewage; the necessary appropriation has been granted, and it is only a matter of very little delay before some definite plan will be adopted, put into operation, and the so-called Mystic lake nuisance abated.

With regard to Pegan brook the Board is similarly situated. Negotiations are in progress upon a plan the basis of which is that the two communities shall unite in preventing the sewage and drainage of the brook from polluting Lake Cochituate.

A proposition has been received from the Natick authorities; but it is of too insignificant moment to receive favorable consideration. No time has been lost, however, in pursuing the matter from a peaceful stand-point, for the reason that, pending these negotiations, Corporation Counsel Nettleton has arranged with the attorney of the Natick authorities to agree upon a statement of facts, under the Act of 1875, and submit them to the Supreme Court for its decision. This issue, when decided, will conclusively settle the question as to whether the inhabitants of a town have any right to pollute a water supply by running their sewers and water-closet refuse into it.

The Para Rubber Company has within a few years established a large factory near Farm pond, in Framingham, and is drawing its supply of water from that source. It is also, as we claim, defiling our water supply with the refuse and sewage of the factory. Acting under the advice of the Corporation Counsel, the Board recently sent a peremptory letter to this company to the effect that it proposed to cut off its supply of water from Farm pond. The result of this action has been an agreement on the part of the attorney of the

Rubber Company to ask for an injunction enjoining us from taking such a step. This will have the effect of bringing the matter before the Supreme Court for its decision, and this is just what we desire to accomplish. We want the decision of the Supreme Court upon the rights of cities and towns to a protection of their water supply from the pollutions and contaminations of other cities or towns, or of corporations or individuals. To meet the Pegan brook requirements, and protect the water interests of the city elsewhere, we ask an appropriation of \$14,000.

CAMBRIDGE SUPPLY.

The city of Cambridge having petitioned the City Council of Boston with reference to making available for the use of its citizens the surplus water which runs to waste over the Sudbury dam in the spring of each year, the matter was referred to the Water Committee, and by the latter to this Board. We have had a conference with Mayor Fox, of Cambridge, and the Water Board of that city, the engineers of each Board being present.

Our Engineer, Mr. Henry M. Wightman, expresses the opinion that this water, which our lack of storage facility renders it impossible for us to use or utilize, and hence it wastes itself in the river, might very properly be made available to help a neighboring city in its extremity. He has, therefore, reported favorably upon the petition, and the Board is of the opinion that if there are no legal objections the petition should receive favorable consideration.

It will be borne in mind that this refers only to the surplus water which Boston is unable to utilize or to save; that Cambridge purposes to bear all the expense, and pay such price for the water as the Boston Board may decide to be just and reasonable. The whole matter will be submitted to the Corporation Counsel before final report or action.

JAMAICA-POND AQUEDUCT CORPORATION.

Certain petitions with reference to the purchase of the franchises of this corporation were referred by the City Council to the Water Committee, and by the latter to the Water Board.

It is matter of common knowledge that this corporation furnished the city with water before the introduction of the Cochituate supply; that, subsequently, the city sold the franchises of the company to the present proprietors or their predecessors, who, under these, acquired the right to supply

water to all citizens residing within the limits of the old town of Roxbury, which now forms a part of the municipality of Boston. Under these franchises this corporation is now supplying a large number of our families with water. The Board has given the matter considerable attention, held several conferences with the parties in interest, visited their works and source of supply, and reports as follows:—

The sum paid by the corporation to the City of Boston in 1857, for its franchises, was	. \$32,000 00
The property was appraised by City Engineer Joseph P. Davis in December, 1874. [See City Doc. 108, 1874]	 88,000 00
Land appraised by Joseph P. Davis. [See City Doc. 108, 1874]	 15,700 00
Amount expended in constructions since 1874, new pipes, additional land, etc.	. . . 69,943 64
Total cost to date	 \$205,643 64

	Receipts.		Running Expenses.
1880,	\$12,063 50	. . . About	\$4,500
1881,	14,068 04	. . . “	4,500
1882,	14,655 12	. . . “	4,500
1883, [8 mo.]	13,516 23	. . . “ [8 mo.]	3,000

The rates charged for water by the corporation are one-third less than the present rates of the City of Boston.

The Water Board is emphatically of the opinion that, considering the enormous sums of money which the City of Boston has expended for the introduction of a water supply, it is a matter of sound business prudence for her to oppose the presence of an independent supply, or the advent of competitors, who, under one pretext and another, are endeavoring to introduce new water supplies into the city. Boston needs every dollar which her citizens expend for the use of water, and the presence of antagonistic or competing supplies can have but one result, that of increasing the water-tax. Under these circumstances the cold logic of business calculation would seem to have dictated a different policy from that which has been pursued by the present Board, and yet we believe that an honest, equitable consideration of the peculiar condition and rights of this corporation fully justify the action we have taken.

It is true, as alleged by the petitioners of last year, that both the past and the present Water Boards have granted the requests of this corporation to sell it a quantity of water

sufficient to enable it to supply its customers during a season of unusual drought, and that in doing so we have placed ourselves in the singular position of furnishing a competitor with water for his customers, which he sells to them at one-third less rate than we supply our own consumers. It might very properly be asked, Why not decline to furnish, and thus wipe the competition out? The answer is twofold: first, this course would have entailed an unnecessary hardship upon a class of consumers who were our own citizens; and, second, as the company had purchased from us the right to supply these very people before they became citizens of Boston, it did not seem exactly fair and just that we should turn round after their annexation to Boston and use our power to crush them, and make valueless the very property we had sold them for a large amount. In other words, we sold them a franchise, and a field of labor. Having absorbed their field, this Board thought, and, doubtless, our predecessors were of the same mind, that they were entitled to very courteous consideration; and we have extended it to them. The purchase of the franchise and property is a mere business consideration, and the only question that need be asked, outside of the already expressed policy that Boston should control its whole supply, is, will the investment pay?

This Board believes, from the partial examination made, that it will pay, at the present rate of charge to its consumers [$\frac{1}{3}$ less than our rates], 6 per cent. upon an investment of \$100,000, and a proportionally higher percentage of interest if the water-rates were raised to the Boston standard.

The property cost upwards of \$200,000, and is said to be in good business condition.

The Board, therefore, recommends a careful verification of these statements, and, if found to be correct, that the property be purchased at a price not to exceed \$100,000, payable in long bonds, running for a sufficient length of time to enable the income to accumulate a sinking fund for liquidation; the property after purchase to be managed separately by the Water Board, precisely as if it were continuing as an independent corporation. This, it will be observed, is not intended as an increase of the water debt of the city, but rather to the making of a profitable investment, and the doing of which will enable the city to control the entire water supply of its citizens.

BEACON-HILL RESERVOIR.

The Board has no intention or desire to reopen a question which has apparently been settled, or, at any rate, was

deemed to have been pigeon-holed. We are satisfied, however, that this matter was passed upon without a full knowledge of the facts, and hence an unintentional injustice has been done to the Water Department.

The Water Department, so far as relates to its property, accounts, books, debts, income, in fact all of its business and financial relations, is just as much an entirety as if it were an independent corporation. Its debts and its credits, its assets and its liabilities, are represented upon its books precisely the same as if it were a business corporation, and its transactions required to be accounted for to the last dollar.

The Beacon-Hill Reservoir appears upon its books as part of its assets, having been paid for out of the income of the service, at a cost of \$513,533.21.

This sum represents a part of the cost of the water supply of the city, and the amount stands charged upon our books to-day as a portion of the large indebtedness which the introduction of water has entailed upon the tax-payers.

If that which was purchased with the receipts of the Water Department [and which, of course, stands as part of its assets, whether it be land, reservoirs, water, or other property] be taken from us, ought we not, in justice, be credited with the value of the thing taken? This is in accordance with the ordinary principles of book-keeping, and, also, with the practice which has always prevailed in the business relations of this department with all other departments of the city, as well as with the outside world.

The amount we paid for the Beacon-Hill property, and represented upon our books as a debt of the water supply, is		\$513,533 21
The loss upon the property consequent upon its abandonment was		313,533 21
The balance was		\$200,000 00

This balance represents the assessed value of the reservoir and land at the time of its taking for Court-house purposes, and it seems to us that, should the Water Department require in the future an appropriation equal to this sum, such appropriation ought to be charged as a Court-house loan, and the money passed to the credit of the Water Department as an offset to its original expenditure.

We have conferred with the Corporation Counsel upon the subject, and he very frankly says, that his opinion of December 6, 1882, covered simply the legal aspects of the case,

and was without reference to the equities presented in our conference. We respectfully ask that the matter be reopened, if, indeed, it has ever been closed, and that the Water Board have an opportunity to be heard in the premises.

MISCELLANEOUS.

Special attention is called to that part of Engineer Wightman's report relating to the necessities of the high-service. The question was fully considered in our last report, and is again taken up, both by the Engineer and the Board, as a matter which demands and should receive the early attention of the City Council. We need hardly remind the City Council of the constantly increasing consumption in the Mystic Department, its limited water-shed area, and the growing tendency of polluting influences. These are facts with which you are entirely familiar, and the Board makes reference to them at this time as a simple reminder that an additional source of supply for the Mystic Department is one of the pressing necessities of the time.

The Board, in justice both to itself and to Engineer Wightman, takes the liberty to again present the recommendation found upon page 30 of our last report, with reference to the salary of Mr. Wightman. He receives a smaller compensation than similar officers in some of the small cities. We made the original recommendation unsolicited, and we now renew it as a matter of justice to a most competent and faithful official.

The cost of maintenance and extension of pipe is very much in excess of last year, and will unquestionably exceed the estimates made by our predecessors many thousand dollars. This excess is caused by reason of the large amount of pipe relaid in East Boston on the demand of the Fire Commissioner as a precaution against fire; by the relaying of the main over Warren-street bridge; the Deacon and Church experiments; the extreme dry season, which has stimulated an unusually large application for new service-pipes in the outlying districts; the increase in the cost of labor, by order of the City Council; and the naturally large extra expenses arising from the extreme drought, such as extra inspectors, to prevent waste, advertisements, pumping at the lakes, etc. These have all contributed to make the expenses of maintenance largely overrun the estimates and the appropriations. This subject will be considered in detail later in the financial year.

The Board is also obliged to employ competent officials to carry out several of the provisions of Section 20 of Chapter

27 of the Revised Ordinances, which, up to a recent date, have been entirely neglected.

INSPECTION AND WASTE.

Under the system of inspection which prevailed prior to July last ten officials were employed as inspectors in the Cochituate Department and three in the Mystic Department. Upon this small number of officers devolved the duty of inspecting the premises and fixtures of nearly 80,000 water-takers, and of obtaining all the necessary data required by the Water Registrars for the assessment of water-rates. It was a physical impossibility for such a limited force to properly examine either the premises or fixtures, and hence for a series of years prior to the organization of the present system the condition of the water-pipes and fixtures has been a matter of inquiry at the doors of water-takers, rather than an examination in person by the inspectors.

Immediately after the June appropriation of the current year the Water Board decided to abolish the old system, and organize a division of inspection and waste. Six of the old force were retained, either as new inspectors or in connection with other duties, and the remainder, with three exceptions, were subsequently employed in the Water Registrar's offices. The gentlemen composing the new Inspectors' corps were selected wholly with reference to their competency, honesty, courtesy, and ability, and were each and all of them required to be indorsed by at least four reputable citizens of the city or State. The average age of the appointees was about thirty years, twenty-two being natives of Massachusetts, and six foreign-born. The Water Department was divided into twenty-four districts, and these were grouped into four divisions. A chief inspector was placed in charge of each division of six districts, the ultimate purpose being to assign one inspector to each district. The district officers are not allowed to report to the City Hall in person, but are required to present their several reports each morning to the chief inspectors, who meet them at some convenient point in the divisions, and subsequently these go to the superintendent's office for instructions.

No actual inspection of premises and fixtures having taken place for a number of years, the Board deemed it wise not to assign the officers to district duty in the outset, but to work the divisions together, in order to accomplish the double object of disciplining the force and obtaining quick results. More than one half of the premises of the water-takers have already been examined, and in upwards of 20 per cent. of

these the fixtures have been found to be out of order, and were at once required to be put in proper condition. The officers of the division have performed a large amount of labor, and have done it most courteously and efficiently. There has been but one complaint, and this, upon investigation, proved groundless. The general examinations will be finished early in February, and at that date we shall have, for the first time in many years, an accurate statement or geography of the condition of all the fixtures in the Water Department, and the further satisfaction of knowing that all those found to be defective have been repaired. We shall then be able to assign the officers to their respective districts, and begin the required routine examinations upon which the assessment of water-rates is in large part based. The question of a change of rates has not been considered this year, the Board preferring to await the results of the experiments now in progress in connection with the prevention of waste.

On November 5 the Board called upon Superintendent Cashman for a detailed report of the labors of his division. This report speaks for itself, and is as follows : —

OFFICE OF DIVISION OF INSPECTION AND WASTE,

WATER DEPARTMENT, CITY HALL, BOSTON, NOV. 8, 1883.

WILLIAM A. SIMMONS, *Esq.*, *Chairman Boston Water Board*: —

SIR, — In compliance with the order of the Water Board passed Nov. 5 (instant), I herewith respectfully submit the following report of the progress made by the Division of Inspection and Waste from August 26, the date of my last report, up to and including Nov. 7.

The division is making rapid progress in the house-to-house inspection. The entire of the following districts has been inspected, and a record of the fixtures for taking water has been taken, viz.: Somerville, South Boston, Dorchester, Roxbury, West Roxbury, and Brighton, and a part of Charlestown. A large portion of the city proper, including North End, South End, and West End, has also been inspected.

The divisions of inspection are at present located as follows: Division 1, in the Beacon Hill district; Division 2, in the North End; Division 3, in the vicinity of Kneeland and Oxford streets; Division 4, in the vicinity of Chester square and Northampton street.

The number of houses and other premises inspected by each inspector respectively, for which returns have been received in this department, together with waste notices served, are as follows : —

Division 1. — Geo. E. Raymore, Chief Inspector.

Inspector.	No. of Street Reports.	Waste, or Defective Fixture Reports.	Notices to Repair.	No. of Premises Reexamined.	Second, or Fine Notices Served.	Reports of Malicious Waste.	Fine Notices for Waste.	Reports of Illegal Use of Hose.	Hose, Fine Notices Served.
Murray, R. J.	858	172	171	137	16	2	2	. . .	. . .
Strange, Jas. J.	823	182	181	260	16	. . .	. . .	. . .	. . .
Sweeney, C. F.	775	296	299	318	23	. . .	. . .	2	2
Maguire, R. E.	815	178	178	226	16	. . .	. . .	1	1
Hassett, Jno. B.	910	241	239	214	2	. . .	. . .	1	1
Daly, James F.	783	102	102	91	5	. . .	. . .	. . .	. . .
Total	4964	1171	1170	1246	78	2	2	4	4

Division 2. — P. D. Dwyer, Chief Inspector.

Inspector.	No. of Street Reports.	Waste, or Defective Fixture Reports.	Notices to Repair.	No. of Premises Reexamined.	Second, or Fine Notices Served.	Reports of Malicious Waste.	Fine Notices for Waste.	Reports of Illegal Use of Hose.	Hose, Fine Notices Served.
McNamara, John	689	95	86	68	2	3	3	. . .	. . .
Ross, Geo. F.	972	164	161	156	16	3	3	. . .	. . .
McCarron, Charles, and Quigley, J. L., substitute . . . }	415	87	87	77	3	. . .	. . .	. . .	. . .
Maguire, J. B.	694	153	153	153	9	. . .	. . .	. . .	. . .
Haley, John A.	930	233	231	227	7	. . .	. . .	. . .	. . .
Corbett, John J.	918	163	157	164	3	. . .	. . .	. . .	. . .
Total	4618	895	875	845	40	6	6	. . .	. . .

Division 3. — William P. Carroll, Chief Inspector.

Inspector.	No. of Street Reports.	Waste, or Defective Fixture Reports.	Notices to Repair.	No. of Premises Re-examined.	Second, or Fine Notices Served.	Reports of Malicious Waste.	Fine Notices for Waste.	Reports of Illegal Use of Hose.	Hose, Fine Notices Served.
McAuliffe, John J.	945	203	202	199	5	...	...	...	...
Toland, Jos. H.	888	142	139	123	4	...	...	...	...
Desmond, John F.	888	123	116	111	7	...	...	...	...
Furlong, Lawrence P.	805	202	191	222	5	2	2	...	...
Edmonds, Michael	919	165	162	173	8	...	...	...	...
Ready, Edward	913	212	208	211	11	...	...	...	...
Total	5358	1047	1018	1039	40	2	2	...	...

Division 4. — Daniel A. McCarty, Chief Inspector.

Inspector.	No. of Street Reports.	Waste, or Defective Fixture Reports.	Notices to Repair.	No. of Premises Re-examined.	Second, or Fine Notices Served.	Reports of Malicious Waste.	Fine Notices for Waste.	Reports of Illegal Use of Hose.	Hose, Fine Notices Served.
Kilduff, William	731	155	155	129	10	...	...	1	1
Butler, Wm. F.	532	73	70	79	10	1	1	1	1
Quigley, John J.	649	131	127	106	4	1	1	...	...
Cullen, John F.	802	202	200	198	31	1	1	...	...
Murray, Thos. F.	577	76	75	96	10	...	...	3	3
Cassidy, M. F. J.	761	217	211	187	8	1	1	5	5
Total	4052	854	838	795	73	4	4	10	10

Summary of work done by the several divisions from August 26 to November 7 (inclusive).

DIVISION.	Number of Street Reports.	Waste, or Defective Fixture Reports.	Notices to Repair.	Number of Premises Reexamined.	Second, or Fine Notices Served.	Reports of Malicious Waste.	Fine Notices for Waste.	Reports of Illegal Use of Hose.	Hose, Fine Notices Served.
No. 1	4,964	1,171	1,170	1,246	78	2	2	4	4
No. 2	4,618	895	875	845	40	6	6	...	...
No. 3	5,358	1,047	1,018	1,039	40	2	2	...	...
No. 4	4,052	854	838	795	73	4	4	10	10
Total	18,992	3,967	3,901	3,925	231	14	14	14	14

The above summary gives for each of the sixty-three working days covered by this report : —

Inspections each day	3011 $\frac{1}{2}$
Average number for each inspector per day	12 $\frac{1}{2}$
Total average number of premises inspected by each inspector	7911 $\frac{1}{3}$
Number of notices to repair defective fixtures served each day	63
Number of defective fixtures reported by inspectors each day	63

The following items are not included in the foregoing schedule : —

No. of persons fined for neglecting to repair defective fixtures	80
Of these the fines were collected from	56
And abated on	24
No. of persons fined for malicious waste	18
Of these the fines were collected from	14
And abated on	4
No. of persons fined for illegal use of hose	30
Of these fines were collected from	16
And abated on	14
The total amount of cash received for fines and paid over to Registrar Davis was	\$228
During the period embraced in the report the water was cut off from	45
And let on again to	40 persons.

A charge of \$2 each was paid to the "Cut-off and Let-on" Department, for the forty "Let-ons" \$80

In addition to the foregoing, the following business was done through this department; but the reports were received from the sources hereinafter mentioned, and outside the regular staff of the Inspection and Waste Division:

Engineer's Department, per Mr. Dexter Brackett:—

Defective fixture reports received	194
Notices to repair issued	194
No. of reëxaminations made	163
Second or fine notices served	7
Reports of malicious waste of water	11
Fine notices issued for malicious waste	11

Police Department:—

Defective fixture reports received	34
Notices to repair issued	34
Reports of illegal use of hand hose	20
No. of persons fined on above reports	5

Reports received from citizens:—

Defective water-fixtures	16
Notices to repair after examining premises	10

"Shut-off and Let-on" Department:—

Notices to repair issued through this department, ...	58
Reëxaminations of premises	112
Second or fine notices served	7
Waste notices served	6

Water Registrar Caldwell's department:—

Reports of defective water-fixtures	24
Notices to repair	28
Reëxaminations of premises to repair fixtures	27
Fine notices served	1

In my report of the progress of this department, made to the Board Aug. 10, the number of houses and other premises inspected was given as 7,361

The report of Aug. 27 gave 12,453

The present report up to Nov. 7 gives 18,992

Total 38,806

There are in the Cochituate district 53,655 water-takers.

In the Mystic 16,700

making 70,355 in all.

According to the average daily inspection of the 24 inspectors it will take — allowing 13 for the average — 102 days to complete the present house-to-house inspection. This will bring the close of the inspection into the second week of February, 1884, as mentioned in my report of Aug. 10.

The Inspectors continue to find an enormous waste of water, and thus far over 6,340 notices to check waste have been issued from this department.

I find, however, that the fact of the inspectors being around, and liable to call at any house, has made citizens more particular regarding the malicious waste of water, and that the city plumbers have been kept constantly busy repairing fixtures to prevent leaks.

The Inspectors have been informed in the various districts which they have examined, that no inspection to stop waste, and no thorough inspection of any kind, has heretofore been made.

I am informed by the Registrar of the Mystic Division that the revenue of his department has been materially increased by the inspection in his district.

The Inspectors under my charge continue to give entire satisfaction in the discharge of their duties.

I desire to call the attention of the Board to the entire unfitness of the present office of the department for the work performed in it, and to request that more suitable accommodation may be afforded for the proper performance of the work.

Very respectfully,

D. B. CASHMAN,
Superintendent.

BOSTON, Nov. 30, 1883.

The following are a few of the cases of "malicious waste," or waste of water through gross carelessness, reported to the Division of Inspection and Waste since the report of August 27 was furnished to the Water Board: —

79 Rutland st. — Automatic hopper closet has been running half-head for six years. The tenant said it was for the purpose of "flushing the bowl."

3 Crescent place. — Tank out of order, and leaking for five years.

24 Fabian st. — Hopper closet in basement running at half-head for six months.

44 *Cross st.* — A bad leak in hopper closet for two years.

Alban st., Dorchester. — Fourth house left from Welles ave. Leak in the stopcock. It has been running for seven years.

31 *Bradford st.* — Four sink faucets, one on each floor, running half-head for two years or more; also bad leak in hopper closet on first floor.

164 *W. Springfield st.* — Hopper closet fixed not to shut off water; constantly running, to keep water from freezing.

76 *Hudson st.* — Large waste from tank for four years.

10 *Edinboro' st.* — Main pipe burst on outside of stopcock, running at full-head for a year, causing an enormous waste of water.

Allston place. — Johnson, occupant. Hopper cock in W. C. running one-half head for three years or more. It was in same condition when family moved in.

1 *Oregon st.* — Hopper W.C. running at full-head for a year or more; an enormous waste.

2 *Hope place.* — Hopper closet leaking three years.

119 *George st., B.H.* — W.C. leaking badly for two months.

66 *Yeoman st.* — Faucet runs a stream constantly.

67 *George st., B.H.* — W.C. in cellar running full force for a month.

64 *Yeoman st., B.H.* — W.C. without fixture; impossible to shut off water. It has run full force for six months.

4 *Jarvis place, B.H.* — W.C. runs a stream; no fixture to shut off water.

10 *Adams st., Roxbury.* — Sink faucet runs a stream.

8 *Forest st.* — Fixture in tank leaking badly for a year.

14 *Adams st.* — W.C. in basement runs a large stream.

106 *Warren st.* — Tank fixture leaking so badly that it can be heard on entering the outside door.

105 *Warren st.* — W.C. leaking badly; the water flows freely for ten minutes after being shut off; so for three months.

80 *Middlesex st.* — W.C. running all the time.

86 *Chapman st.* — Water running from tank; overflow all the time.

1 *Lombard place, off Prince st.* — Faucet broken, causing a great waste of water; so for three months.

13 *Groton st.* — Two sinks and a hopper closet leaking for over a year, running full-head.

130 *W. Brookline st.* — Two tank ball-cocks leaking badly, — one for three, the other for 4 years.

3 Revere Place, off Charter st. — Sink faucet leaking badly for over two years.

19 Laurel st., B.H. — W.C. runs a stream; "a very bad waste."

76 Middlesex st. — "Supply-pipe burst, an old rag tied around the pipe; water running all the time, causing a bad waste."

52 Middlesex st. — Valve of water-closet never closes, causing the water to run full-head all the time.

101 Warren st., Roxbury. — "Faucet runs a stream. The occupant says she lived there a year, and it has been constantly running during that time."

44 Prentiss st., in rear. — "Two faucets run a stream, so badly, that the rush of water can be heard at the top of the stairs before entering the tenements; the floors are all wet from the overflow from sinks."

32 and 34 Auburn st., West End. — "Two bad wastes in W.C's. No handles to hoppers to shut off; water running full force all the time," for an indefinite period.

WASTE-WATER DETECTORS.

The experiments in connection with waste-water detectors have been carried on under the immediate direction of Mr. Dexter Brackett, Assistant City Engineer, whose services were placed at the disposal of the Water Board through the courtesy of City Engineer Wightman.

The Board advised Mr. Brackett that it was desirous of using all the Deacon Waste Detectors in connection with the labors of the Inspectors in Superintendent Cashman's division, and to that end had instructed Mr. Cashman to coöperate with him. The method adopted was to locate the Deacon detectors in a given territory in advance of the Inspectors' examinations, ascertain the amount of water being used or wasted daily in the district, then require a thorough house-to-house inspection, repair of all defective fixtures, and a stoppage of wilful waste. Upon this being done the consumption of the district was again taken by the Deacon detector, and the result showed just what had been accomplished by the coöperation.

The City Council, under date of Dec. 19, 1882, appropriated \$500 for the purpose of testing the Church system for preventing waste of water.

Subsequently, the June appropriation of \$25,000 for waste detectors was made, and the Board instructed Mr. Brackett to make the tests of the Church instrument in connection with the Deacon experiments. A certain territory

was selected, three hundred of the Church detectors were purchased and applied, and the result appears in the following report of Mr. Brackett:—

DEACON AND CHURCH WASTE-DETECTORS.

BOSTON, Nov. 28, 1883.

HON. W. A. SIMMONS, *Chairman Boston Water Board*:—

DEAR SIR, — The following report, upon the results which have been accomplished during the present year by the use of the "Deacon" and "Church" waste detectors, is respectfully submitted:—

"DEACON" WASTE-WATER DETECTORS.

The Deacon Waste-Water Meter, of which a cut and detailed description may be found in the annual report of the Boston Water Board for the year 1881-82 (City Doc. 124, 1882), is an instrument by means of which the quantity of water which is being used in a given section of the city at any instant is recorded upon a diagram. From this diagram, which furnishes a continuous record of the rate of consumption for twenty-four hours, can be ascertained the amount which is being used during the night, or from 1 to 4 A.M., when the legitimate use of water should be very small, and this night rate furnishes a very good indication of the amount which is being wasted in the section supplied.

The method of applying the system has been different from that used in the Charlestown experiments, on account of the absence of stopcocks in the sidewalk. The method which has been used, although not as satisfactory as that used in Charlestown, has, nevertheless, been the means of accomplishing the result desired, viz., the suppression of waste.

The work has been conducted as follows: after the meter had been set and connected with the street mains, the gates on the borders of the section were closed, so that all of the water consumed in a district containing from two to three thousand persons was passed through the meter, and the quantity recorded.

After a few diagrams had been obtained the work of inspection was begun. On account of the absence of the sidewalk stopcocks, by means of which the occurrence of waste on individual premises can be determined without entering the houses, the inspectors were obliged to examine

the premises of every water-taker. After this examination had been made, and the discovered defects had been remedied, another set of diagrams was taken, to determine the effect of the inspection, and by closing certain street-gates the amount of waste in each street was determined.

If the quantity wasted in any street was found to be disproportionately large, the work of inspection was continued until the waste was discovered. (This second inspection has not been made in the City Proper or South Boston.)

The sections covered by the meters embrace the whole of East Boston, and the following districts in the city proper and South Boston:—

Sections 1, 2, and 3, in the City Proper, embrace the territory bounded by Prince, Commercial, and Hanover streets.

Sections 4, 5, and 6, the territory bounded by Prince, Hanover, Blackstone, and Charlestown streets.

Sections 7 and 8, the territory bounded by Nashua, Causeway, and Leverett streets.

Sections 9 and 10, the portion of the Beacon Hill high-service lying west of Joy street.

Sections 11, 12, 13, 14, and 15, the territory bounded by Dover, Tremont, Castle, Motte, and Albany streets.

Sections 16, 17, 18, and 19, the territory bounded by Washington, Beach, Albany, and Curve streets, and Broadway.

Sections 1 and 2, in South Boston, embrace all of the territory east of L street.

Sections 3 and 4, the territory between L and H streets.

Section 6, all of the high-service district.

Sections 7, 8, 9, 10, 11, and 17, the territory bounded by Fourth, Dorchester, First, and A streets.

Sections 12, 13, 14, 15, and 16, the territory bounded by Fourth, Dorchester, and A streets, and the Old Colony R.R.

In East Boston the work was begun in accordance with a vote of the former Water Board; and in that district both the management of the meters and the direct supervision of the house-to-house inspection has been in charge of this department.

In South Boston and in the City Proper the management of the meters has been under my control, but the work of inspection has been done by the Department of Inspection and Waste.

EAST BOSTON.

As the results obtained in the Charlestown district in 1881 had demonstrated what could be accomplished by the use of

the meters, the work in East Boston was conducted primarily with regard to accomplishing the saving of water, and less attention was paid to the tabulation of results.

For this reason all of the results obtained cannot be given in detail; but the following table shows the saving in some of the sections: —

Number of Section.	Estimated Population.	GALLONS PER HEAD PER DAY.						Percentage of Reduction.	
		Before Inspect'n.		After Inspection.		Amount Saved.			
		Total.	Night-rate per 24 Hours.	Total.	Night-rate per 24 Hours.	Total.	Night rate per 24 Hours.	On Total.	On Night- rate.
1	1,815	35.6	24.8	27.8	13.4	7.8	11.4	21.9	46.0
2	1,780	65.6	49.2	34.7	12.1	30.9	37.1	47.1	75.3
3	3,085	49.9	30.0	32.3	13.5	17.6	16.5	35.2	55.0
4	2,170	35.7	21.2	21.8	15.5	13.9	5.7	38.9	26.9
6	2,530	28.1	11.2		7.6		3.6		32.1
7	2,040	36.7	21.7	21.8	12.9	14.9	8.8	40.0	40.6
8	1,095	48.0	28.5		8.8		19.7		69.2
10	1,790	34.8	20.1	22.4	6.9	12.4	13.2	35.5	65.5
11	2,140	34.6	17.4	26.8	12.5	7.8	4.9	22.6	27.9
12	7,500	60.9		32.9		28.0		46.0	

Section 12 embraces the whole of the high-service district, and the records of the pumping-station exhibit very distinctly the effect of the inspection. The following table shows the daily average consumption for each month of the years 1882 and 1883. The work of inspection on the high-service was commenced in May.

Daily Average Consumption of the East Boston High-Service Works.

	1882.	Consumption per Head per Day.	1883.	Consumption per Head per Day.
	Daily Average Consumption.		Daily Average Consumption.	
January	395,780	52.7	497,830	66.3
February	527,290	70.3	517,130	69.0
March	423,630	56.5	517,960	69.0
April	382,140	50.9	457,070	60.9
May	394,770	52.6	381,470	50.9
June	420,900	56.1	321,150	42.8
July	429,470	57.2	276,830	36.9
August	448,840	58.8	287,380	38.3
September	405,110	54.0	246,710	32.9
October	400,230	53.3	199,330	26.6
November	407,640	54.3	.....	.....
December	442,410	59.0	.....	.....

The present consumption of the whole East Boston district is about 48 gallons per head per day, of which 15 gallons are metered and used for manufacturing and business purposes; leaving a present consumption of 33 gallons per head for domestic purposes.

The saving effected was accomplished by the detection and suppression of the following sources of waste:—

Defective faucets	387
“ water-closets	240
“ ball cocks	35
“ inside services	145
“ stopcocks	41
“ street mains	2
Water-closets found running	32
Faucets “ “	16
Total	898

The total cost of the work, which includes the setting and operating the meters, and the house-to-house inspection of the entire East Boston district, has been \$1,997.59.

CITY PROPER AND SOUTH BOSTON.

In July the Department of Inspection and Waste was organized, for the purpose of obtaining a thorough examination of the water-fixtures of the whole city ; and, for the purpose of ascertaining the results of this inspection in certain districts of the city, it was decided to purchase nine Deacon meters.

Two of these meters arrived in July, and, together with one which had been in use in East Boston, were at once placed on sections in the South Boston district. In August the remainder of the meters were received from England and set in the City Proper.

After these meters had been set and a few diagrams taken from each, to obtain the rate of consumption in the sections supplied, a house-to-house inspection was made by the Inspection and Waste Department, after which another set of diagrams was taken, to ascertain the effect of the inspection, and a street inspection was made to localize the remaining waste.

The sections supplied through the meters are shown on the accompanying plans. The class of water-takers supplied consists principally of the poorer class of dwellings, with some stores and stables.

The number of families, stores, and stables in each section, together with the estimated population of each, is shown by the following table. The population is based upon the records of the Water Registrar and the U.S. census of 1880.

City Proper.

Number of Section.	Number of Families.	Stores.	Stables.	Estimated Population.	Population common to other Sections.
1	408	4	. . .	2,040	. . .
2	549	8	1	2,745	600
3	485	9	1	2,425	600
4	503	12	6	2,515	. . .
5	400	20	1	2,000	620
6	500	35	1	2,500	620
7	340	7	. . .	1,700	. . .
8	592	9	1	2,960	325
9	393	9	2	1,965	. . .
10	210	8	1	1,050	500
11	545	16	2	2,725	. . .
12	428	29	2	2,140	280
13	550	24	2	2,750	. . .
14	357	70	1	1,785	565
15	474	23	5	2,370	565
16	475	15	6	2,375	. . .
17	411	36	. . .	2,055	315
18	287	72	1	1,435	315
19	176	14	. . .	880	315

South Boston.

Number of Section.	Number of Families.	Stores.	Stables.	Estimated Population.	Population common to other Sections.
1	530	9	22	2,650	. . .
2	357	9	13	1,785	. . .
3	754	7	21	3,770	. . .
4	539	38	10	2,695	115
6	500	. . .	2	2,500	. . .
7	623	93	9	3,115	. . .
8	465	5	17	2,325	430
9	462	11	12	2,310	430
10	569	6	12	2,845	430
11	450	88	6	2,250	430
12	588	13	21	2,940	. . .
13	479	12	22	2,395	440
14	323	13	4	1,615	440
15	690	17	26	3,450	. . .
16	590	12	6	2,950	820
17	370	8	1	1,850	430

The consumption per head, previous to and after the inspection, and the percentages of saving effected in each section, are shown by the following tables:—

City Proper.

Number of Section.	Estimated Population.	GALLONS PER HEAD PER DAY.						Percentage of Reduction.	
		Before Inspect'n.		After Inspection.		Amount Saved.		On Total.	On Night- rate.
		Total.	Night-rate per 24 Hours.	Total.	Night-rate per 24 Hours.	Total.	Night-rate per 24 Hours.		
1	2,040	80.3	62.8	72.8	57.4	7.5	5.4	9.3	8.6
2	2,745	42.9	30.2	25.3	14.9	17.6	15.3	40.9	50.8
3	2,425	47.7	36.2	39.4	26.3	8.3	9.9	17.5	27.3
4	2,515	58.8	45.0	36.7	25.0	22.1	20.0	37.6	44.4
5	2,000	66.8	47.5	55.1	38.2	11.7	9.3	17.5	19.7
6	2,500	73.3	51.0	42.0	22.8	31.3	28.2	42.7	55.2
7	1,700	61.0	46.6	40.5	27.9	20.5	18.7	33.6	40.2
8	2,960	45.0	35.9	30.4	20.0	14.6	15.9	32.4	44.4
9	1,965	62.5	43.2	50.6	25.4	11.9	17.8	19.0	41.2
10	1,050	91.6	69.0	78.0	46.2	13.6	22.8	14.8	33.1
11	2,725	64.4	45.5	35.2	18.0	29.2	27.5	45.3	60.5
12	2,140	94.0	74.4	52.9	32.0	41.1	42.4	43.7	56.9
13	2,750	60.8	46.4	45.8	36.1	15.0	10.3	24.6	22.2
14	1,785	125.9	105.2	81.7	62.1	44.2	43.1	35.1	41.0
15	2,370	69.8	52.3	56.5	39.7	13.3	12.6	19.0	24.1
16	2,375	78.1	64.2	71.9	52.8	6.2	11.4	7.9	17.9
17	2,055	53.8	35.3	39.2	22.6	14.6	12.7	27.2	35.9
18	1,435	134.4	102.3	105.0	74.3	29.4	28.0	21.9	27.4
19	880	152.0	142.3	59.9	40.9	92.1	101.4	60.6	57.4
	34,800	69.8	53.2	49.6	33.9	20.2	19.3	28.6	36.3

South Boston.

Number of Section.	Estimated Population.	GALLONS PER HEAD PER DAY.						Percentage of Reduction.	
		Before Inspect'n.		After Inspection.		Amount Saved.			
		Total.	Night-rate per 24 Hours.	Total.	Night-rate per 24 Hours.	Total.	Night-rate per 24 Hours	On Total.	On Night- rate.
1	2,650	58.6	35.6	63.7	44.7	0	0	0	0
2	1,785	60.0	40.0	56.0	38.0	4.0	2.0	6.6	5.0
3	3,770	49.1	34.8	43.8	24.7	5.3	10.1	10.5	29.1
4	2,700	38.1	18.6	35.5	19.7	2.6	. 0 .	6.8	0
6	2,500	65.0	45.0	65.0	45.0	0	0	0	0
7	3,115	52.6	38.5	33.6	20.3	19.0	18.2	36.1	47.1
8	2,325	43.3	27.3	31.7	19.5	11.6	7.8	26.8	28.5
9	2,310	39.1	20.0	31.0	11.2	8.1	8.8	20.7	43.8
10	2,845	41.0	24.6	24.7	10.8	16.3	13.8	39.7	56.2
11	2,250	67.9	47.3	49.2	30.7	18.7	16.6	27.5	35.0
12	2,940	32.4	16.6	19.5	8.6	12.9	8.0	40.0	48.0
13	2,400	53.0	34.8	30.5	14.1	22.5	20.7	42.4	59.5
14	1,615	57.1	43.0	39.5	25.8	17.6	17.2	30.8	42.2
15	3,450	58.5	45.3	35.1	20.5	23.4	24.8	39.9	54.7
16	2,950	46.1	28.9	32.0	17.3	14.1	11.6	30.6	39.9
17	1,790	46.5	33.6	38.3	26.1	8.2	7.5	17.7	22.2
	37,490	50.2	33.2	39.1	23.3	11.1	9.9	22.1	33.0

It will be seen, from the above, that in the City Proper 19 sections, containing about 34,800 people, show an average reduction from 69.8 to 49.6 gallons, or 20.2 gallons per head per day; while the 17 sections in South Boston show an average reduction of 11.1 gallons per head.

Although the class of houses in all of the sections is very similar, yet it will be noticed that the consumption per head both before and after the inspection varies widely in the different districts, and also that in a number of the sections, where the waste is large, little or no saving has been effected.

It is by the development of facts of this kind that the great advantages of the use of the Deacon meter are demonstrated. It is very evident that Sections 2, 8, and 11 of the City Prop-

er, and Sections 9, 10, 12, and 13 of South Boston, need but little further inspection; while Sections 1, 2, 3, 4, 5, and 6 in South Boston, where little or no saving has been made, and Sections 1, 10, 14, 16, and 18 in the City Proper, where the consumption during the night is still at the rate of from 46 to 74 gallons per head per day, still contain a large amount of preventable waste.

The results obtained in Charlestown and East Boston prove conclusively that the night-rate can be easily reduced to 10 or 12 gallons per head; and as the average night-rate in the City Proper sections is still 33.9 gallons, and in South Boston 23.3 gallons, it is evident that a further saving of 20 gallons in the former and 10 gallons in the latter district can be made by further inspection.

The inspection of the sections by streets shows even more clearly the great benefit of the meter in localizing the waste. For example, in Section 1 in the City Proper, with a population of 2,040, the consumption between the hours of 1 and 4 A.M., on Oct. 18th, was at the rate of 4,800 gallons per hour; while 3,360 gallons of that amount was being drawn in Hull street, where the population was but 430. Many similar cases could be given. The benefit of sidewalk stopcocks was well illustrated in Hudson street, between Beach and Harvard streets; the hourly night-rate in this street, before the house-to-house inspection was made, was about 4,000 gallons, or 174 gallons per head per day. The house-to-house inspection reduced this to 3,300 gallons, and the closing of all the sidewalk stopcocks disclosed the fact that a leak of 3,000 gallons per hour existed in the street main, which was afterward found to be broken off and the water running into the neighboring sewer.

It is probable that the larger portion of the waste which the first inspection has failed to discover will be found to be taking place from underground leaks in the services and mains.

The saving effected in the districts supplied by the Deacon meters may be summarized as follows: In East Boston a saving of 15 gallons per head, or 450,000 gallons per day, has been made. In South Boston, in a district containing a population of 37,490 persons, the consumption has been reduced from 50.2 to 39.1 gallons per head, which is equivalent to a daily saving of 415,000 gallons. In the City Proper 19 sections, containing 34,800 persons, show a saving of 20.2 gallons per head, or 703,000 gallons per day.

The total saving recorded by the meters is about 1,500,000 gallons per day,—an amount about equal to the total consumption of the East Boston district.

The cost of the work in the City Proper and South Boston has been \$6,474.74, viz. :—

Cost of meters	\$3,013 73
Cost of setting meters	1,582 76
Cost of management of meters	1,878 25
	\$6,474 74

CHURCH WASTE-DETECTORS.

The Church Waste-Detector, an invention of B. S. Church, Chief Engineer of the New York Aqueduct Commission, consists of a peculiarly constructed stopcock, which is applied to each service-pipe in the same manner as an ordinary stopcock, and, like the latter, it furnishes the means of shutting off and letting on the water to each house. By means of a hollow stem reaching from the stopcock to the surface of the sidewalks, a pressure-gauge may be attached to the stopcock, and by turning the cock to different positions the gauge will indicate the amount of waste which is taking place in the house at the time when the trial is made.

Three hundred of these stopcocks have been set in different parts of the city, and night readings of the gauge have been made, to ascertain the amount of waste from each service. Examinations of the premises were then made, and notices issued for the repair of defects discovered. After the repairs had been made, a second trial of the stopcocks was made, and the results of both are shown in the following tables :—

CHURCH WASTE-DETECTOR INSPECTION.

Number of Street.	Street.	Waste in Gallons per Hour.		Cause of Waste.
		First Inspection.	Second Inspection.	
1	Hudson	71	94	Leak in service-pipe in cellar.
4	"	0	400	Water left running.
5	"	39	0	Water-closet defective.
6	"	30	0	Faucet defective.

CHURCH WASTE-DETECTOR INSPECTION.— *Continued.*

Number of Street.	Street.	Waste in Gallons per Hour.		Cause of Waste.
		First Inspection.	Second Inspection.	
8	Hudson	108	50	Water left running.
13	"	71	0	Ball-cock defective.
22	"	15	0	Ball-cock and faucet defective.
23	"	15	0	Faucet defective.
25	"	66	0	Two water-closets defective, and service burst.
30	"	15	0	Water-closet defective.
33	"	69	0	" "
34	"	69	0	" "
40	"	50	0	
45	"	15	0	
47	"	24	0	Water-closet defective.
48	"	15	0	" "
51	"	24	10	
52	"	64	10	Ball-cock defective.
53	"	15	0	
54	"	15	0	
57	"	15	0	
59	"	15	0	Faucet defective.
60	"	86	0	Water left running.
62	"	108	0	Water-closet, ball-cock, and two faucets defective.
64	"	15	0	Two faucets defective.
65	Harvard	15	0	
66	Hudson	103	0	Water-closet defective.
70	"	43	0	Ball-cock defective.
71	"	24	0	
76	"	94	0	Ball-cock and faucet defective.
78	"	15	0	Ball-cock defective.
80	"	15	0	Faucet defective.
82 and 84	"	24	10	Faucet and water-closet defective.
85-87 . .	"	24	0	Stopcock defective.
89	"	200	0	Defective service in cellar.
91	"	15	0	Water-closet defective.
95	"	15	0	
99	"	15	0	
105	"	73	0	Water-closet defective.

CHURCH WASTE-DETECTOR INSPECTION.— *Continued.*

Number of Street.	Street.	Waste in Gallons per Hour.		Cause of Waste.
		First Inspection.	Second Inspection.	
114 . . .	Hudson	24	10	
118 . . .	"	15	0	
120 . . .	"	15	0	
125 . . .	"	43	0	Ball-cock defective.
129 . . .	"	35	10	Two faucets defective.
132 . . .	"	0	66	Water left running.
138 . . .	"	64	15	Ball-cock and stopcock defective.
140 . . .	"	0	15	
3 . . .	Dover	0	10	
4 . . .	"	35	12	
5 . . .	"	30	46	Ball-cock defective.
7 . . .	"	0	27	
8 . . .	"	46	10	Ball-cock defective.
10 . . .	"	0	10	
13 . . .	"	30	0	Ball-cock defective.
17 . . .	"	46	10	" "
21 . . .	"	30	10	" "
22 . . .	"	53	79	Water-closet left open, second in- spection; water-closet defective, first inspection.
25 . . .	"	15	0	Ball-cock defective.
40 . . .	"	69	0	" "
41 . . .	"	15	0	" "
47 . . .	"	24	10	Faucet defective.
51 . . .	"	15	10	Ball-cock defective.
52 . . .	"	82	0	Water-closet defective.
55 . . .	"	15	0	Ball-cock defective.
60 . . .	"	30	0	Ball-cock and faucet defective.
64 . . .	"	39	0	Ball-cock defective.
65-67 . .	"	24	0	Three faucets defective.
5 . . .	Buckingham . . .	27	0	Ball-cock and two faucets defec- tive.
7 . . .	" . . .	15	0	
17 . . .	" . . .	24	0	Water-closet defective.
19 . . .	" . . .	62	0	Water-closet and ball-cock defec- tive.
24 . . .	" . . .	10	0	
29 . . .	" . . .	39	0	Ball-cock defective.

CHURCH WASTE-DETECTOR INSPECTION.— *Continued.*

Number of Street.	Street.	Waste in Gallons per Hour.		Cause of Waste.
		First Inspection.	Second Inspection.	
31	Buckingham	15	0	Ball-cock defective.
35	"	24	10	Ball-cock and water-closet defec- tive.
36	"	5	0	
38	"	10	0	
41	"	53	10	Water-closet defective.
42	"	40	15	
43	"	24	0	Water-closet defective.
47	"	56	0	" "
48	"	15	0	Ball-cock defective.
49	"	48	0	" "
2	Buckingham Place.	15	0	" "
4	"	10	0	
5	"	27	0	Ball-cock defective.
3	Lawrence	5	46	Leak in service-pipe.
8	"	5	0	
13	"	5	0	
14	"	5	0	Faucet defective.
18	"	10	0	Water-closet defective.
19	"	10	0	
20	"	10	0	
21	"	5	0	Water-closet defective.
22	"	24	0	
23	"	27	0	Water-closet defective.
24	"	20	0	
1	Wall	15	0	
2	"	30	0	Faucet defective.
5	"	15	0	
6	"	43	0	Ball-cock defective.
7	"	98	0	Water-closet and faucet defective.
8	"	24	0	
10	"	24	0	
11	"	15	0	Two faucets defective.
14	"	15	0	Faucet defective.
16	"	35	0	
17	"	15	0	

CHURCH WASTE-DETECTOR INSPECTION.— *Concluded.*

Number of Street.	Street.	Waste in Gallons per Hour.		Cause of Waste.
		First Inspection.	Second Inspection.	
21 . . .	Wall	15	0	
32 . . .	"	86	0	Water-closet defective.
38 . . .	"	15	0	
44 . . .	"	30	0	Water-closet defective.
46 . . .	"	0	69	
49 . . .	"	24	0	Water-closet defective.
51 . . .	"	30	0	" "
52 . . .	"	91	0	Water-closet fastened open.
55-61 . .	"	15	0	Three water-closets defective.
	Cushman avenue .	66	0	Water-closet defective.
1 . . .	Union place	15	0	Faucet defective.
2 . . .	" "	15	0	

The second examination shows that most of the defective fixtures had been repaired. In cases where the house inspection revealed no cause for the waste, it can be assumed that the waste was from fixtures negligently or wilfully left running; in a few cases the flow may have been due to legitimate use. About 20 of the stopcocks were set in such a manner that the gauges used could not be attached; of the 280 remaining, 113 showed waste on the first inspection, and 27 on the second trial. The total amount of waste shown by the first inspection was 3,874 gallons; by the second inspection, 955 gallons.

The cost of the work has been \$3,453.70 for the 300 stopcocks in position, and about \$200 for inspection.

The result accomplished by all the methods which have been used is shown by the following table, giving the daily average consumption from the Cochituate works, for each month of the years 1882-83.

	1882. Daily average Consumption.	Gallons per Head per Day.	1883. Daily average Consumption.	Gallons per Head per Day.
January	32,151,100	92.9	34,715,500	97.8
February	34,662,300	102.2	32,690,700	92.0
March	32,656,300	94.1	34,110,700	95.8
April	30,827,000	88.6	30,617,600	85.8
May	28,738,000	82.3	32,169,500	89.8
June	33,178,400	94.8	33,419,200	93.3
July	30,992,600	88.5	36,774,000	102.4
August	34,149,300	97.3	37,141,000	103.2
September	31,691,600	90.0	33,645,600	93.2
October	31,563,800	89.4	29,575,800	81.9
November	31,138,700	88.7	29,000,000	80.0
December	32,352,300	91.4		

From the above it would appear that the total saving effected is at least 3,000,000 gallons, or about 8.5 gallons per head. This is the result achieved thus far by the inspection in East Boston, and by the Department of Inspection and Waste throughout the city.

Yours respectfully,

DEXTER BRACKETT,
Assistant Engineer.

These reports of Messrs. Cashman and Brackett present a most powerful and striking illustration of the great evil which Boston, and the other large communities of the world, are called upon to consider. It is, perhaps, useless to further discuss this much-worn waste problem. The question has been presented to the City Council and the citizens of Boston almost every year for the past thirty years, and yet, save in a few spasmodic instances, nothing practically has been done to remedy the evil. It is an indisputable fact that at least forty per cent. of our entire water supply is wasted. It cannot be denied that if the water which is wilfully wasted every year in Boston could be sold at our regular rates, the receipts would pay the annual interest on the whole \$20,000,000 invested in the water supply, and several hundred thousand dollars beside. No one denies the existence of the evil, nor questions the causes thereof, or the necessity of adopting the most effective remedial measures. Other cities afflicted with

the same evil have passed through the same experience, and we must be guided by their example, if we expect relief.

In Norwich, England, the consumption was reduced, by the application of waste-detective measures, from 48 to 15 gallons per head daily. In Glasgow, from 49 to 35 gallons per head daily. In Liverpool and Manchester similar results followed the use of the preventive means adopted. In Cincinnati, as we are informed, considerable success has resulted from the use of an instrument called the "Bell Waterphone," which is what may be termed an intensified listening-machine. This is connected by wire or pipe with the service-pipe of each taker, and the waste is detected by sound. House-to-house inspection is required in connection with this system, and its use is said to have effected a saving of several millions of gallons daily.

The Board has under consideration a proposition to test these instruments at an early day in connection with the present house-to-house inspection.

The City of Providence, which has the most effective water service of any city in this country, has accomplished more than any other community, because of the adoption of the Recording Meter or Measurement System. It has about 11,000 service-pipes and 6,000 recording meters, or nearly 60 per cent. of meters to the services opened. The daily per capita consumption is about 36 gallons.

Boston, which has four times the water-taking population, has less than 3,000 meters, and uses nearly 100 gallons per head, thus using (or wasting in large part) nearly 300 per cent. more water than her sister city. Comment is unnecessary. We have saved about 3,000,000 gallons per day by the system of inspection established in July last. It is not expected that this saving will continue during the winter months, when almost everybody is in the habit of permitting the water to run all night in order to prevent freezing. No inspection efforts will entirely prevent this very wasteful practice.

The report of the Joint Standing Committee on Water, under date of May 25, 1882 (see City Doc. No. 78), treated this subject exhaustively. The whole water problem of Boston, outside of the question of purity, is tersely and forcibly stated in that report. It can scarcely be enlarged upon or improved, and we earnestly invite the attention of the City Council to its conclusions. The Water Board has demonstrated, as the present report conclusively shows, that the theory of the joint committee concerning the causes of waste was correct. We concur with that committee in the conclusion that the principal methods of preventing waste are : —

1. The Meter System.
2. House-to-house inspection.
3. The Waste-Water Meter System.

This report shows that we have reduced the joint committee's theories to a practical result, and are, therefore, able to reinforce the committee's arguments with the logic of the indisputable facts herewith presented.

We believe that the consumption of water in Boston can be reduced to 60 gallons per capita, and if it can be done no more money will be required for new basins, or additional sources of supply, in the Cochituate Department, for a period of at least fifteen years. If immediate steps are not taken to thus reduce the consumption, an expenditure of 4,000,000 to 5,000,000 dollars will be required within the next fifteen years. If the Providence and Liverpool systems be vigorously continued, as now begun, we believe the City of Boston will save for her citizens between two and three millions of dollars during the next twenty years.

THE PROVIDENCE SYSTEM.

The system of meter measurement has long prevailed in Providence, upwards of 6,000 recording meters being in use in that city. We have, as already stated, about 2,500 now in use in Boston, and some 1,500 under construction. The machinery for building the meters ordered has just been completed, and the first instalment of Tremont machines has been received. They are fully up to the standard of the one adopted, and are unquestionably the simplest, most compact, and best instruments for water measurement in the market. They are being built by the American Arms Co., of East Boston, who will soon be able to turn them out as fast as the department needs them. They can be seen at any time by members of the City Council, either at the factory in East Boston, or at the yard on Federal street, where they are constantly being tested. The policy of the Board is to apply recording meters to all business establishments, manufactories, hotels, tenement-houses, and to all other places where a large quantity of water is used, or where wilful waste occurs.

The Board has caused to be printed upon the new water bills a provision which will permit a change from schedule rates to meter rates any time during the year, should the interests of the city demand it, and purposes next year to arrange the rates so that, when an excessive quantity of water is being used, consumers shall be required to pay for the

same. The Board believes the true principle of assessment of water taxes to be a schedule rate based upon valuation or fixtures, or both; but that this rate, instead of permitting an unlimited use of water, as at present, should only cover a fair and liberal per-capita consumption, requiring the water-taker to pay at measurement rates for the amount used in excess of this fair per-capita allowance.

HOUSE-TO-HOUSE INSPECTION.

This system of inspection, adopted in July, has become the permanent system of the department. Its officials are performing their duties faithfully, and the results of their labors have been made apparent both in the repair of defective fixtures and the large daily decrease of water consumption. Larger experience will add to the value and effectiveness of this service. It is the intention of the Board to compel all water-takers to keep their fixtures in good order, and to utilize this force to the extent of its capacity in this direction, and for the purpose of checking waste. The Board recommends that six additional inspectors be appointed; Messrs. Dwight and Houghton, now doing temporary duty with Registrar Davis, to be made permanent inspectors, and four additional. This will enable us to divide the city (including Chelsea, Somerville, and Everett) into thirty districts, instead of twenty-four, as at present. This enlarged force will be quite small enough for the work to be properly and efficiently done.

WASTE-DETECTOR SERVICE.

The results obtained by the combined operation of the Deacon and Church systems with the house-to-house inspection are fully apparent in the accompanying report of Mr. Brackett, and measurably justify the expectations of the joint committee of last year. It should be borne in mind, however, that the Deacon system is worked to much greater disadvantage in Boston than in Liverpool, where it has met with so much success. To reach the speediest and most accurate results, every service-pipe should be provided with a stopcock in front of the premises, accessible from the sidewalk. These, unfortunately, do not exist in Boston save to a very limited extent, while in Liverpool they are fixed under the foot-way in front of every house.

If it be desired to adopt a permanent system to keep in check our enormous waste, the introduction of sidewalk stopcocks must be considered an essential and necessary

feature of that system. Indeed, to use the language of the "New York Sanitary Engineer," "Any system of waste prevention involves cocks at the sidewalk, which are not generally used in New York or Boston." These stopcocks are now used in Boston with all new service-pipes, but the old service, which represents 90 per cent. of the water-takers, is without them.

The Board is unqualifiedly of the opinion that the gradual introduction of sidewalk stopcocks should be begun without delay, and this was the opinion of Engineer Wightman, as set forth in his report to the Board last year. It will cost several hundred thousand dollars, but there is no escape from it if this problem of waste is to be grappled with successfully. The only alternative is the universal application of recording meters.

We believe, with the Joint Committee of 1882, that the most effectual method of stopping waste is the Recording-Meter System. Next to this comes the Waste-Detector System, and this latter, to be free from annoyance and do its work speedily, accurately, and economically, must have the same stopcock appliances as in Liverpool, and in other cities. What Boston needs in this crisis is the adoption of a permanent system to prevent waste, and not a series of patchwork expedients. The Deacon system can be brought to this standard, to the same standard it has reached abroad; but it must have the same appliances.

The Church Waste-Detector is a sidewalk stopcock detector, and both Mr. Church, the inventor, and Mr. Strang, the Deacon agent in this country, agree that it is the natural complement of the Deacon instrument. Mr. Strang, in a communication to this Board, under date of Oct. 16, 1883, says: "That the stop-cock system introduced by Mr. B. S. Church, Engineer to the New Croton Aqueduct Commission of this city, appears to me to be a most valuable adjunct or supplement to the Deacon meter system, and I cordially recommend its adoption as a part thereof. The two, taken together, will accomplish more in the saving of waste water, if carefully established and honestly worked as one system, than has even been dreamed of by the most enthusiastic economist." In the recent experiments by Mr. Brackett it has done its work well, and fully comes up to the standard claimed for it by Mr. Church, the inventor. This instrument combines both the stopcock and waste indicators, and though somewhat more expensive than the ordinary sidewalk stopcock, has, perhaps, advantages which would outweigh the extra cost. Its inventor, Mr. Church, is the engineer of the New York aqueduct, now under construction, and has been

connected with the water service of New York for many years. Mr. Church informs the Board that he has united his Eastern interests with the Deacon system, and is in correspondence with the Liverpool authorities for the purpose of combining the two systems in that city.

The plan which the Board desires to adopt may be summarized as follows : —

1st. To put recording meters on all manufactories, breweries, stores, business establishments, hotels, tenement-houses, and all other places where a large quantity of water is used, or where waste prevails.

2d. To establish Deacon waste-detectors in the residential portions of the territory supplied with water, making specific districts, and doing the work in conjunction with the house-to-house inspection.

3d. To begin the putting in of sidewalk stopcocks at once, adopting the Church stopcock as the best complement to the Deacon, if the further trials continue to prove its excellence.

To carry these plans into execution the Board asks that the following appropriations be made : —

1. For Recording meters, \$150,000.
2. For Deacon waste-detectors, \$50,000.
3. For Church or sidewalk stopcocks, \$50,000.

CURRENT WORK.

The following reports from the different departments represent generally the work done since the last report of the Board : —

WATER REGISTRAR'S OFFICE, BOSTON, December 5, 1883.

HON. W. A. SIMMONS, *Chairman Boston Water Board* : —

Sir, — The following statement reports the principal doings in this department for September, October, November, and will doubtless be of interest to the City Council : —

Total assessments for rates	.	.	\$110,419 59
Number of new takers	.	.	407
“ meters set	.	.	31
“ discontinued	.	.	6

Collections.

Water-rates	\$101,008 75
Off and on water, for non-pay- ment, ...	148 00
Off and on for repair and waste,	645 00
Fines for waste	286 00
Summonses	61 00
Service-pipe	2,337 32
Elevator and motor-pipes	1,406 81
Sale of old material	1,018 03
Sundry small accounts	111 32
	\$107,022 23

Respectfully submitted,

WM. F. DAVIS,
Water Registrar.

METER DIVISION.

BOSTON, Dec. 1, 1883.

HON. WM. A. SIMMONS, *Chairman Boston Water Board*: —

SIR, — In reply to circular of November 6, requesting a statement of progress of the work in this department since September 6, I beg leave to offer the following report to date: —

Cochituate Division.

Whole number new meters placed	29
“ “ exchanged	36
“ “ discontinued	14
“ “ repaired	138
“ boxes renewed	26

Mystic Division.

Whole number new meters placed	14
“ “ exchanged	9
“ “ discontinued	7
“ “ repaired	30
“ boxes renewed	9

Respectfully,

HIRAM CUTTS, *Supt. Meter Division.*

EASTERN DIVISION.

BOSTON, Dec. 1, 1883.

WM. A. SIMMONS, Esq., *Chairman Boston Water Board*:—

SIR,—In conformity to your order I herewith present the progress of the work in my department since Sept. 6, 1883:—

Main Pipe.

The number of feet laid and the size are as follows:—

2,183	feet of 48 inch.		
600	“ 30	“	
4,429	“ 24	“	
135	“ 24	“	Syphon at Warren Bridge.
1,398	“ 20	“	
2,702	“ 12	“	
3,038	“ 8	“	
9,733	“ 6	“	
16	“ 4	“	

making a total of 24,234 feet, or about $4\frac{1}{2}$ miles.

In the above lines of pipe there has been established gates, hydrants, and such specials as are required, as follows:—

3 gates	36-inch.	6 gates	8-inch.
1 “	30 “	33 “	6 “
5 “	24 “	5 “	4 “
2 “	16 “	40 hydrants.	
2 “	12 “		

Service-Pipes.

Of the various sizes, 389 in number, 10,145 feet.

Leaks in the above sizes of main and service-pipes:—

36-inch, ...	1	4-inch.	7
30 “	1	2 “	5
20 “	3	$1\frac{1}{2}$ “	2
16 “	1	$\frac{5}{8}$ “	74
12 “	3		
8 “	2		
6 “	23		
			122

Church detectors put in	297
Elevator pipes put in	9
“ “ changed	1
Motor “ put in	2
“ “ changed	2
Fire “ put in	1
Streets repaired	353
Stoppages on pipes	30
Service-pipes abandoned and plugged	11
Stopcock and hydrant boxes renewed and repaired	115
New ones put in	82
Hydrant and stopcocks cleaned and oiled	490

The general condition of the works, in my judgment, is much better than ever before. The new main will, in a week, be completed.

The new 20-inch pipe over the Warren bridge is finished.

Respectfully submitted,

E. R. JONES,

Superintendent Eastern Division B. W. W.

The reports from the Western Division indicate that the routine work is being performed as usual, nothing of special interest having occurred since the last report. The condition of affairs in the Mystic Department is sufficiently indicated in the report of the Engineer of the Board.

On page 12 of our last report the total appropriation for Basin No. 4 was put down at \$690,000. It should have read \$650,000. The same error occurred on the following page.

RECAPITULATION.

In conclusion, permit us to make a brief summary of the recommendations contained in this report, believing them to be of paramount importance and very essential to the continued maintenance of an efficient, economic, and abundant water supply.

Appropriations.

1st. For an amount sufficient to increase the number of Inspectors to thirty	\$6,000 00
2d. For Recording Meters	150,000 00
3d. For Deacon Waste-water Service	50,000 00

4th. For Church or Sidewalk Stopcocks .	50,000 00
5th. For the protection of the water interests of the city at Pegan brook and elsewhere	14,000 00

Early Considerations.

- 1st. The High-Service Extension.
- 2d. The Jamaica Pond Corporation.
- 3d. The Beacon Hill Reservoir.
- 4th. The increase of Engineer Wightman's salary.

The Board was appointed without regard to political considerations, and solely with reference to a vigorous, economic business administration of the water service of the city. It has made no removals from office for political reasons; in fact, there have been but two removals for any reason; but has conscientiously endeavored to discharge its duty faithfully and impartially. The individual members of the Board have devoted their time and attention to a patient study of the necessities of the water service; they have exercised a close personal supervision over the business of this department; they have tried to push the work with all the energy that a due regard to economy and thoroughness would permit, and they invite the closest scrutiny of their administration, of the books and accounts of the department, of all their acts, in fact, by members of the City Council, and of the citizens generally. Our duty ceases when we present the results of our labors and investigations to your honorable body.

The responsibility of these recommendations we assume without hesitation; beyond this we can do nothing save possibly to urge that your action may accord with our judgment.

Respectfully submitted,

W. A. SIMMONS,
G. M. HOBBS,
J. G. BLAKE,

Boston Water Board.

CITY OF



BOSTON.

REPORT OF PARK COMMISSIONERS

ON

APPROPRIATIONS AND EXPENDITURES FOR
PUBLIC PARKS.

To the Honorable the City Council of the City of Boston: —

Agreeably with the provisions of the ordinance which requires reports of expenditures to be made in connection with requests for additional appropriations, the Board respectfully reports the expenditures under the appropriations made for West Roxbury Park, Wood Island Park, City Point Park, and Charles River Embankment, as follows: —

WEST ROXBURY PARK.

Expenditures under the appropriation of \$5,000 for preliminary surveys and care of park: —

Surveys.

Surveyors and assistants . . .	\$1,629 25	
Surveying expenses . . .	275 29	
		\$1,904 54

Care of Grounds and Buildings.

Park Police	\$1,430 00	
Police equipments	25 00	
Sign-posts and notices	250 59	
Insurance	112 50	
Advertising	40 91	
Printing	14 91	
		1,873 91
Sanitary buildings		1,221 50
		\$4,999 95
Balance, Dec. 13, 1883		05
		\$5,000 00

WOOD ISLAND PARK, EAST BOSTON.

Expenditures under the appropriation of \$5,000 for surveys, plans, and laying out Wood Island Park : —

Surveys.

Surveyors and assistants . . .	\$131 00	
Surveying expenses . . .	15 99	
		\$146 99

Care of Park.

Advertising	\$34 80	
Sign-posts and notices	14 53	
		49 33

		\$196 32
Balance, Dec. 13, 1883		4,803 68
		\$5,000 00

CITY POINT PARK.

Expenditures under the appropriation of \$3,000 for filling, grading, and care of park : —

Filling and Grading.

Filling material delivered by carts	\$1,650 96	
Labor in levelling and measuring	488 00	
Engineering expenses	16 32	

		\$2,155 28
Balance, Dec. 13, 1883		844 72
		\$3,000 00

CHARLES RIVER EMBANKMENT.

Expenditures under the appropriation of \$1,000 for borings and estimates for sea-wall, etc. : —

Borings and Soundings.

Labor and expenses	\$546 66	
------------------------------	----------	--

Care of Grounds and Buildings.

Repairs and care of buildings	\$359 94	
Labor in levelling filling	68 00	
Stationery	2 40	
		430 34

		\$977 00
Balance, Dec. 13, 1883		23 00
		\$1,000 00

The order now before the City Council in regard to appropriating all moneys received from lands and buildings, acquired by the city, for park purposes, to the expenses incident to the care and maintenance of the public parks so acquired, will be all the action needed in the matter of additional appropriations for these parks during the present financial year.

Respectfully submitted,

CHARLES H. DALTON,
WILLIAM GRAY, JR.,
HENRY LEE,

Commissioners.

BOSTON, December 13, 1883.

CITY OF



BOSTON.

AN ORDINANCE

TO

AMEND THE ORDINANCE IN RELATION
TO THE HEALTH DEPARTMENT.

In the year one thousand eight hundred and eighty-three.

AN ORDINANCE TO AMEND CHAPTER TWENTY-TWO OF
THE REVISED ORDINANCES.

Be it ordained by the City Council of Boston, as follows: —

SECTION 1. Section forty-eight of chapter twenty-two of the Revised Ordinances is hereby struck out and the following inserted: —

SECT. 48. No person shall sell, or offer for sale, on any street, lane, or alley, any fish, lobsters, oysters, or shell-fish of any kind, or any fruit or vegetables, except by permission of the Board of Health, and on such conditions as they shall order. Every person violating any of the provisions of this ordinance shall be liable to a penalty not exceeding twenty dollars for one offence.

IN COMMON COUNCIL, Dec. 13, 1883.

Ordered to be printed.

Attest:

W. P. GREGG,
Clerk of the Common Council.

CITY OF



BOSTON.

SECOND REPORT

OF

PARK COMMISSIONERS

ON

WEST ROXBURY PARK BOUNDARIES.

To the Honorable the City Council of the City of Boston: —

An order having been reported by the Committee on Public Parks, and passed by the Common Council, authorizing this Board to change the boundaries of the West Roxbury Park within certain limits, the Board respectfully reports the estimated expense of the same as follows: —

The original plan reported in 1876 contains an area of about 475 acres for this park, and the Board remains of opinion that it is for the highest interest of the city to secure all these lands, and such estates or parts of estates immediately adjacent to the present proposed limits as may appear to be judicious for improving the boundaries of the park, giving an area of not less than 500 acres.

The Board has purchased and taken about 324 acres, which, at 25 per cent. above valuations, amount to \$600,000, the appropriation already made.

The Board estimates the expense of taking the above 500 acres at \$1,100,000, and recommends that an additional appropriation of \$500,000 be made to take, by purchase or otherwise, the lands not already secured.

Whatever lands are to be included should be secured this year, in justice to property-owners in the immediate vicinity,

in order that their estates may be adjusted to the changed condition which will at once obtain from so important a public improvement as the establishment of the great park of the city. If only \$600,000 worth of lands are taken, the original plan must necessarily be shorn of much of its symmetry, and, in a degree, fail to accomplish its contemplated purposes, unless supplemented in the near future, at greatly increased expenditure, by the probable destruction of values in structural and street improvements.

The Board is of opinion that such an investment will be a source of profit to the City Treasury rather than a charge thereon; that, judging from the increasing popular interest in park development, it will meet with the approval of citizens, and will be a lasting monument to the wisdom of the Government.

Respectfully submitted,

CHARLES H. DALTON,
WM. GRAY, JR.,
HENRY LEE,

Commissioners.

Boston, Dec. 17, 1883.

CITY OF



BOSTON.

ENLARGEMENT OF THE LOT

OF THE

WINCHELL SCHOOL-HOUSE,

IN THE

PHILLIPS DISTRICT.

RESOLVE AND ORDER OF NOTICE.

IN BOARD OF ALDERMEN, Dec. 17, 1883.

Whereas, There is need of enlarging the lot of the Winchell school-house, in the Phillips District, it is therefore hereby —

Resolved, That, in accordance with the provisions of Section 48, of Chapter 44 of the Public Statutes, this Board does determine upon the following described parcels of land, situate on or near Parkman street, in Boston, as a suitable place for enlarging said school-house lot, viz. : —

A parcel of land now or formerly belonging to the heirs of Mary Craig, bounded as follows, viz. : north by Parkman street, there measuring eighteen and $\frac{14}{100}$ feet; east by Blossom street, twenty-five and $\frac{25}{100}$ feet; south by land of the City of Boston, eighteen and $\frac{19}{100}$ feet; west by land now or formerly of Joseph Scarlett, twenty-five and $\frac{35}{100}$ feet; containing four hundred and fifty-nine square feet, more or less.

Another parcel of land now or formerly belonging to the heirs of Mary Craig, bounded as follows, viz. : north by land now or formerly of Joseph Scarlett, there measuring thirteen and $\frac{27}{100}$ feet; east by land now or formerly of said Scarlett, and by land of the City of Boston, fifteen and $\frac{75}{100}$ feet; south by land of said city, fourteen and $\frac{12}{100}$ feet; west by land now or formerly of Ruth H. Ingersoll, fifteen and $\frac{75}{100}$ feet; con-

taining two hundred and twenty-one square feet, more or less.

A parcel of land now or formerly belonging to Joseph Scarlett, bounded as follows, viz.: north by Parkman street, there measuring thirty-two and $\frac{10}{100}$ feet; east by land now or formerly of the heirs of Mary Craig, twenty-five and $\frac{35}{100}$ feet; south by land of the City of Boston, eighteen and $\frac{25}{100}$ feet; west by land now or formerly of said heirs of Mary Craig, twelve and $\frac{67}{100}$ feet; again south by the same, thirteen and $\frac{97}{100}$ feet; again west by land now or formerly of Ruth H. Ingersoll, twelve and $\frac{67}{100}$ feet; containing six hundred and forty-one square feet, more or less.

A parcel of land now or formerly belonging to Ruth H. Ingersoll, bounded as follows, viz.: north by Parkman street, there measuring sixteen and $\frac{86}{100}$ feet; east by land now or formerly of Joseph Scarlett, land now or formerly of the heirs of Mary Craig, and land of the City of Boston, forty-four feet; south by land of said city, sixteen and $\frac{73}{100}$ feet; west by land now or formerly of Joseph Scarlett, forty-four and $\frac{13}{100}$ feet; containing seven hundred and forty square feet, more or less.

Another parcel of land now or formerly belonging to Joseph Scarlett, bounded as follows, viz.: north by Parkman street, there measuring sixteen and $\frac{67}{100}$ feet; east by land now or formerly of Ruth H. Ingersoll, forty-four and $\frac{13}{100}$ feet; south by land of the City of Boston, sixteen and $\frac{67}{100}$ feet; west by land now or formerly of Nathaniel Springfield, forty-four and $\frac{25}{100}$ feet; containing seven hundred and thirty-seven square feet, more or less.

A parcel of land now or formerly belonging to Nathaniel Springfield, bounded as follows, viz.: north by Parkman street, there measuring sixteen and $\frac{50}{100}$ feet; east by land now or formerly of Joseph Scarlett, forty-four and $\frac{25}{100}$ feet; south by land of the City of Boston, sixteen and $\frac{67}{100}$ feet; west by land now or formerly of John Ayres, trustee, forty-four and $\frac{37}{100}$ feet; containing seven hundred and thirty-two square feet, more or less.

A parcel of land now or formerly belonging to John Ayres, trustee, bounded as follows, viz.: north by Parkman street, there measuring sixteen and $\frac{50}{100}$ feet; east by land now or formerly of Nathaniel Springfield and land of the City of Boston, eighty-three and $\frac{50}{100}$ feet; south by land now or formerly of Rosetta M. McGaffigan, sixteen feet; west by land now or formerly of said McGaffigan, land of the City of Boston, and land now or formerly of Caleb Bowker, thirty-nine feet; again south by said land now or formerly of Caleb Bowker, $\frac{30}{100}$ of a foot; again west by the same, forty-four

and $\frac{25}{100}$ feet; containing thirteen hundred and forty-nine square feet, more or less.

A parcel of land now or formerly belonging to Caleb Bowker, bounded as follows, viz.: north by Parkman street, there measuring sixteen and $\frac{50}{100}$ feet; east by land now or formerly of John Ayres, trustee, forty-four and $\frac{25}{100}$ feet; again north by the same, $\frac{30}{100}$ of a foot; again east by the same, nine and $\frac{75}{100}$ feet; south by land of the City of Boston, sixteen and $\frac{42}{100}$ feet; west by land of said city, fifty-four feet; containing eight hundred and eighty-nine square feet, more or less.

The said parcels of land are shown on a plan made by Thomas W. Davis, City Surveyor, dated December 17, 1883, and deposited in the office of said City Surveyor.

Passed.

FREDERICK E. GOODRICH,
City Clerk.

IN BOARD OF ALDERMEN, Dec. 17, 1883.

Whereas, by a resolve of this date, this Board has, in accordance with the provisions of Section 48 of Chapter 44 of the Public Statutes, determined upon certain parcels of land situate on or near Parkman street, in Boston, as a suitable place for enlarging the lot of the Winchell school-house, in the Phillips District, of which said parcels the heirs of Mary Craig, Joseph Scarlett, Ruth H. Ingersoll, Nathaniel Springfield, John Ayres, trustee, and Caleb Bowker are the supposed owners, it is therefore hereby —

Ordered, That due notice be given to the said heirs of Mary Craig, Joseph Scarlett, Ruth H. Ingersoll, Nathaniel Springfield, John Ayres, trustee, and Caleb Bowker, in the manner provided for laying out town-ways, that this Board intends to select and lay out for the enlargement of said school-house lot the said parcels of land, and to appraise the damages to the several owners of such lands sustained thereby, said parcels being bounded and described as in the resolve aforesaid, and shown on the plan therein referred to and it is further —

Ordered, That Monday, the 31st day of December, A.D. 1883, at 4 o'clock P.M., is assigned as the time for hearing any objections which may be made thereto.

Passed.

FREDERICK E. GOODRICH,
City Clerk.

CITY OF



BOSTON.

REPORT

OF

COMMITTEE ON SEWERS,

GIVING

LIST OF ACCEPTED STREETS IN WHICH NO
SEWERS HAVE BEEN BUILT.

IN BOARD OF ALDERMEN, Dec. 17, 1883.

The Committee on Sewers, to whom was referred the order of this Board, passed Sept. 29, 1883, requesting said committee "to report a list of accepted streets in which no sewers have been built, together with an estimate of the cost of constructing sewers in said streets," have obtained the necessary data, and would report as follows: —

The accompanying list includes all the accepted streets requiring sewers, either in whole or in part, and the figures set against each street indicate the length of that street yet unprovided with sewer.

In brief, the length of accepted streets in the city proper without sewers is 61,800 feet; South Boston, 66,000 feet; East Boston, 26,350 feet; Roxbury, 96,675 feet; West Roxbury, 281,790 feet; Dorchester, 262,270 feet; Charlestown, 15,650 feet; Brighton, 134,900 feet, making in all 945,435 feet, or about 180 miles.

It would be impracticable to make an estimate of the cost of so extensive a line of sewers which would meet the variable conditions of more than five hundred streets without

careful preparation, yet an indication may be given by assuming an average cost based upon that determined for the 180 miles constructed within the city limits previous to 1878:—

Namely, \$3.50 per linear foot for 945,435 feet would amount to three million three hundred and nine thousand and twenty-three dollars (\$3,309,023).

Respectfully submitted,

BENJ. F. ANTHONY,
Chairman.

Accepted and ordered printed.

FREDERICK E. GOODRICH,
City Clerk.

Accepted Streets in City Proper without Sewers.

	Fect.		Fect.
Albany st.,	3,500	Deblois st.,	150
Albemarle st.,	300	Durham st.,	300
Allston st.,	150	East Lenox st.,	450
Arch st.,	250	East Springfield st.,	650
Arlington st.,	800	Falmouth st.,	1,100
Ash st.,	300	Franklin st.,	600
Atlantic ave.,	3,400	Garland st.,	250
Auburn st.,	200	Gloucester st.,	600
Beacon st.,	5,100	Harcourt st.,	300
Blackwood st.,	300	Harrison ave.,	700
Bosworth st.,	250	Haven st.,	250
Boylston st.,	2,600	Hawley st.,	300
Broadway,	400	High st.,	800
Camden st.,	1,100	Hull st.,	300
Chandler st.,	500	Huntington ave.,	2,950
Cherry st.,	300	James st.,	400
Charles st.,	2,500	John st.,	250
Clarendon st.,	1,000	Lehigh st.,	1,100
Cobb st.,	300	Leverett st.,	300
Columbus ave.,	1,400	Lincoln st.,	250
Commercial st.,	800	Malden st.,	900
Commonwealth ave.,	2,300	Marlborough st.,	600
Cornhill,	200	Matthews st.,	200
Cumberland st.,	150	Mercantile st.,	200
Cumston st.,	100	Mt. Vernon st.,	500
Deacon st.,	200	Montgomery st.,	300

	Feet.		Feet.
Moon st.,	200	St. James st.,	950
Myrtle st.,	500	State st.,	650
Mystic st.,	450	Stevens st.,	150
Newbury st.,	2,400	Stoughton st.,	650
Newland st.,	300	Thorndike st.,	600
Northampton st.,	500	Washington st.,	1,700
Northfield st.,	100	Wendell st.,	250
Parnell st.,	100	West Brookline st.,	500
Perkins st.,	200	West Chester park,	2,600
Plympton st.,	500	Westland ave.,	800
Rollins st.,	300	West Newton st.,	400
Snow Hill st.,	500	Willard st.,	100
South Market st.,	400	Woodbury st.,	400
Spring st.,	250		
Spruce st.,	250		
St. Botolph st.,	2,000		
			61,800

Accepted Streets in South Boston without Sewers.

	Feet.		Feet.
A st.,	200	L st.,	2,950
B st.,	1,450	Linden st.,	300
Bolton st.,	150	Lowland st.,	300
Boston st.,	500	M st.,	3,000
Broadway,	3,050	Mt. Washington ave.,	300
Burnham st.,	500	N st.,	2,400
C st.,	2,400	Ninth st.,	3,900
Colony st.,	100	O st.,	2,250
Congress st.,	1,200	Old Harbor st.,	600
D st.,	1,900	P st.,	1,000
Division st.,	200	Power st.,	50
Dorchester ave.,	2,200	Preble st.,	100
E st.,	2,000	Q st.,	1,400
Eighth st.,	1,100	Richards st.,	250
Emerson st.,	200	Rogers st.,	300
F st.,	2,600	Second st.,	2,200
Fifth st.,	1,750	Seventh st.,	1,200
First st.,	5,300	Sixth st.,	1,900
Fourth st.,	850	Swett st.,	1,300
Granite st.,	1,350	Third st.,	1,700
Grimes st.,	400	Thomas Park,	2,000
H st.,	2,000	Vale st.,	800
I st.,	3,000	Washburn st.,	50
Jackson st.,	50		
K st.,	1,300		
			66,000

Accepted Streets in East Boston without Sewers.

	Feet.		Feet.
Bennington st.,	200	Lewis st.,	1,050
Brooks st.,	500	Marginal st.,	450
Border st.,	2,000	Marion st.,	1,100
Bremen st.,	1,450	Maverick st.,	2,400
Chaucer st.,	800	Moore st.,	500
Chelsea st.,	2,000	Morris st.,	1,150
Clyde st.,	450	New st.,	300
Condor st.,	1,800	Pope st.,	1,400
Cottage st.,	300	Prescott st.,	700
Cowper st.,	300	Putnam st.,	300
Curtis st.,	600	Saratoga st.,	2,900
Decatur st.,	250	Shelby st.,	450
Eagle st.,	200	Swift st.,	200
Falcon st.,	250	Webster st.,	650
Glendon st.,	400	White st.,	700
Haynes st.,	100		
Jeffries st.,	500		
			26,350

Accepted Streets in Roxbury without Sewers.

	Feet.		Feet.
Albany st.,	200	Edgewood st.,	350
Alleghany st.,	250	Ellis st.,	500
Alpine st.,	200	Elm-Hill ave.,	2,050
Autumn st.,	350	Eustis st.,	600
Bainbridge st.,	450	Fairland st.,	650
Beech Glen ave.,	900	Farnham st.,	150
Bickford st.,	400	Fort ave.,	900
Blue Hill ave.,	700	Francis st.,	1,900
Bower st.,	600	Gay st.,	300
Bromley st.,	400	George st.,	450
Bromley park,	600	Georgia st.,	200
Brookline ave.,	6,400	Gerard st.,	1,000
Cary st.,	500	Gilbert st.,	850
Centre st.,	2,750	Greenwich st.,	300
Cheney st.,	1,150	Gurney st.,	150
Chester park,	2,800	Harrison ave.,	900
Clarence st.,	650	Heath st.,	2,700
Cleveland st.,	300	Heath place,	300
Copeland st.,	200	Highland st.,	650
Crawford st.,	2,650	Highland Park st.,	150
Dale st.,	650	Hillside st.,	2,950
Danforth st.,	200	Holborn st.,	900
Day st.,	1,900	Humboldt ave.,	3,250
Dearborn place,	300	Hartopp place,	250

	Feet.		Feet.
Hulbert st.,	250	Smyrna st.,	300
Hunneman st.,	400	Stafford st.,	75
Huntington ave.,	3,800	Station st.,	700
Juniper st.,	200	Sterling st.,	800
Kearsarge ave.,	500	Sunderland st.,	100
Kenilworth st.,	450	Swett st.,	3,000
Lambert ave.,	650	Taber st.,	550
Langdon st.,	1,000	Taber court,	100
Lansing st.,	200	Townsend st.,	3,400
Linwood st.,	300	Tremont st.,	3,000
Linwood square,	200	Vine st.,	200
Longwood ave.,	2,300	Waite st.,	700
Magazine st.,	2,600	Walden st.,	550
Mall st.,	100	Walnut ave.,	2,100
Maple st.,	450	Walpole st.,	300
Monroe st.,	1,100	Warren st.,	1,000
Mt. Pleasant ave.,	450	Washington st.,	350
Norfolk ave.,	1,700	Waverley st.,	400
Oregon st.,	200	Webber st.,	100
Phillips st.,	750	Weston st.,	100
Putnam st.,	300	Williams st.,	300
Palmer st.,	100	Windsor st.,	350
Parker st.,	4,800	Woodward ave.,	150
Parker-Hill st.,	3,800	Woodville square,	250
Renfrew st.,	200	Wyman st.,	900
Rockville place,	200		
Roys st.,	150		
Ruggles st.,	580		
			96,675

Accepted Streets in Charlestown without Sewers.

	Feet.		Feet.
Adams st.,	350	Front st.,	1,400
Alford st.,	1,200	Gardner st.,	100
Arlington ave.,	300	Green st.,	400
Austin st.,	700	Henley st.,	250
Bainbridge st.,	200	High st.,	150
Cambridge st.,	200	Joiner st.,	550
Chelsea st.,	1,050	Laurel st.,	100
Chestnut st.,	100	Lawrence st.,	300
Common st.,	200	Lynde st.,	800
Concord st.,	300	Main st.,	400
Cordis st.,	150	Monument ave.,	150
Dunstable st.,	200	Monument st.,	400
Essex st.,	350	Monument square,	1,300
Ferrin st.,	200	Park st.,	300

	Feet.		Feet.
Parker st.,	200	Thompson st.,	100
Pearl st.,	250	Tremont st.,	200
Phipps st.,	100	Union st.,	100
Pleasant st.,	150	Vine st.,	150
Princeton st.,	150	Washington st.,	400
Prospect st.,	200	West st.,	100
School st.,	300	Winthrop st.,	100
Sever st.,	550		
Stone st.,	200		15,650
Summer st.,	300		

Accepted Streets in West Roxbury without Sewers.

	Feet.		Feet.
Albano st.,	630	Forest Hill st.,	3,900
Amherst st.,	540	Gardner st.,	3,500
Amory st.,	450	Glen Road,	4,200
Annawan ave.,	1,710	Grove st.,	4,600
Arnold st.,	3,070	Hawthorn st.,	500
Ashland st.,	4,220	Holbrook st.,	1,150
Avon st.,	800	Hyde Park ave.,	9,400
Baker st.,	9,800	Ivory st.,	480
Beech st.,	7,250	J. A. Andrews st.,	400
Bellevue st.,	1,950	Jamaica st.,	1,600
Berry st.,	1,050	Jordan st.,	300
Birch st.,	810	Keyes st.,	250
Blakemore st.,	400	Kittredge st.,	1,610
Bourne st.,	2,600	Lagrange st.,	12,900
Brandon st.,	470	Lamartine st.,	400
Brookside ave.,	300	Lowder's lane,	1,400
Brown ave.,	2,600	Linnett st.,	800
Burr st.,	300	Maple st.,	1,850
Burroughs st.,	130	March ave.,	400
Bussey st.,	1,900	May st.,	1,150
Canterbury st.,	13,400	Metropolitan ave.,	3,840
Carolina ave.,	1,700	Morrison st.,	800
Centre st.,	27,550	Mt. Hope ave.,	1,550
Chestnut st.,	4,950	Mt. Vernon st.,	4,300
Church st.,	3,020	Morton st.,	8,000
Corinth st.,	610	Neponset ave.,	2,050
Cory st.,	2,840	Newbern st.,	350
Dale st.,	1,020	Oakdale st.,	300
Danforth st.,	190	Orchard st.,	1,550
Dent st.,	250	Oriole st.,	800
Ellicott st.,	450	Park st.,	3,200
Florence st.,	3,000	Paul Gore st.,	1,600

	Feet.		Feet.
Perkins st.,	800	Spring st.,	4,200
Pond st.,	5,450	Sycamore st.,	900
Poplar st.,	7,540	Temple st.,	2,250
Prince st.,	2,250	Walk Hill st.,	6,400
Prospect st.,	650	Walnut st.,	6,300
Revere st.,	180	Walter st.,	3,600
Rockland st.,	1,230	Washington st.,	22,140
Rockview st.,	1,100	Weld ave.,	100
Rockwood st.,	1,350	Weld st.,	11,800
Rutledge st.,	560	Williams st.,	6,500
Severns ave.,	190	Willow st.,	1,610
Sheldon st.,	500	Woodside ave.,	450
Sheridan ave.,	1,200		
South st.,	13,390		281,730

Accepted Streets in Dorchester without Sewers.

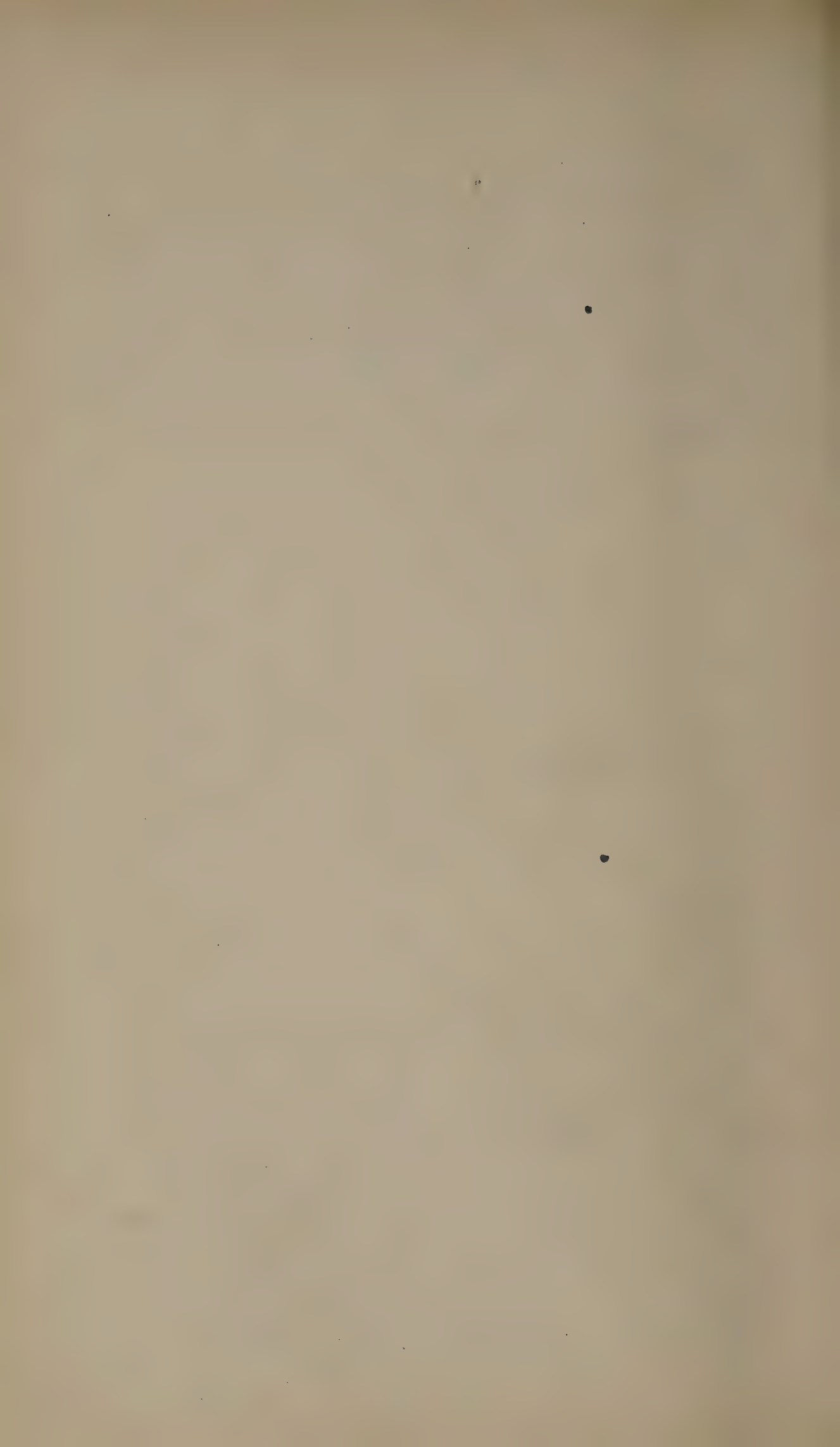
	Feet.		Feet.
Adams st.,	11,900	Columbia st.,	5,000
Alban st.,	1,350	Commercial st.,	7,300
Allston st.,	700	Cottage st.,	1,400
Argyle st.,	1,300	Carruth st.,	1,750
Ashmont st.,	6,400	Cushing ave.,	1,000
Back st.,	10,700	DeWolf st.,	350
Bailey st.,	1,900	Ditson st.,	600
Beach st.,	1,050	Dorchester ave.,	14,600
Bellevue st.,	1,100	Dove st.,	200
Bird st.,	350	Draper st.,	100
Blue Hill ave.,	17,800	Eldon st.,	600
Boston st.,	2,100	Euclid st.,	400
Boutwell ave.,	900	Evans st.,	1,650
Bowdoin ave.,	1,900	Everett st.,	250
Bowdoin st.,	4,700	Forest Hill ave.,	5,800
Brookford ave.,	900	Freemont st.,	300
Butler st.,	500	Fuller st.,	1,800
Butterwood st.,	600	Glide st.,	250
Cedar st.,	1,000	Glenarm st.,	900
Central ave.,	400	Geneva ave.,	1,600
Centre st.,	4,000	Grafton st.,	200
Clapp st.,	200	Grampian Way,	2,700
Charles st.,	200	Hancock st.,	300
Chester park,	1,600	Harley st.,	600
Chickatawbut st.,	1,600	Harvard st.,	3,500
Church st.,	250	Howard ave.,	1,700
Codman st.,	5,900	Howard st.,	1,050

	Fect.		Fect.
Jerome st.,	600	Richmond st.,	2,300
King st.,	700	River st.,	9,200
Lawrence ave.,	1,350	Robinson st.,	800
Madison ave.,	3,200	Rockwell st.,	1,250
Magnolia st.,	2,900	Roslin st.,	900
March st.,	2,200	Sanford st.,	1,450
Michigan ave.,	800	Savin Hill ave.,	5,600
Midland st.,	400	Sayward ave.,	400
Mills st.,	2,700	Sawyer ave.,	2,000
Milton ave.,	2,550	School st.,	1,050
Milton st.,	1,000	Skelton st.,	850
Mt. Vernon st.,	2,500	Stoughton st.,	1,100
Minot st.,	1,950	Temple st.,	700
Neponset ave.,	5,000	Tenean st.,	2,500
Newhall st.,	570	Thetford ave.,	1,350
New Seaver st.,	1,500	Train st.,	2,550
Norfolk st.,	11,400	Union ave.,	1,800
Oakland st.,	5,000	Walk Hill st.,	2,900
Oakman st.,	300	Walnut st.,	600
Ocean st.,	1,300	Walton st.,	500
Olney st.,	2,200	Washington st.,	14,600
Park st.,	4,150	Water st.,	150
Parkman st.,	1,300	Welles ave.,	1,500
Pierce ave.,	350	West Cottage st.,	250
Plain st.,	650	Westland st.,	1,450
Pleasant st.,	1,500	Westville st.,	2,450
Pond st.,	1,000	Willow court,	700
Pope Hill,	700	Winter st.,	1,050
Preston st.,	1,200		
Quincy st.,	1,500		
Rand st.,	350		
			262,270

Accepted Streets in Brighton without Sewers.

	Fect.		Fect.
Allston st.,	4,050	Everett st.,	3,400
Arlington st.,	650	Faneuil st.,	5,400
Ashford st.,	850	Foster st.,	3,400
Beacon st.,	2,650	Franklin st.,	2,450
Bennett st.,	650	Gordon st.,	400
Bigelow st.,	650	Harvard ave.,	1,800
Brighton ave.,	10,600	Kendrick st.,	2,600
Brook st.,	1,800	Lake st.,	3,400
Cambridge st.,	9,000	Lincoln st.,	4,450
Chestnut Hill ave.,	5,650	Market st.,	4,700
Englewood st.,	1,600	Massachusetts ave.,	9,900

	Feet.		Feet
Mansfield st.,	1,200	Summit st.,	650
Mt. Vernon st.,	200	Tremont st.,	1,700
Newton st.,	900	Union st.,	2,100
Nonantum st.,	2,000	Warren st.,	3,600
North Beacon st.,	6,300	Washington st.,	8,750
North Harvard st.,	4,200	Waverley st.,	1,750
Oakland st.,	1,550	Western ave.,	7,900
Parsons st.,	3,600	Wicklown st.,	1,250
Rockland st.,	1,250	Winship st.,	1,200
Shepard st.,	600		
South st.,	2,850		
Sparhawk st.,	1,300		
			134,900



CITY OF



BOSTON.

REPORT

OF THE

JOINT SPECIAL COMMITTEE

ON THE

TREATMENT OF DRUNKENNESS IN PUBLIC AND PRIVATE INSTITUTIONS.

IN BOARD OF ALDERMEN, December 17, 1883.

The Joint Special Committee appointed to consider and report upon the treatment of drunkenness in public and private institutions, and to ascertain if it is not possible, by a different mode of treatment, to improve the condition of the victims of intemperance, having considered the subject, beg leave to submit the following

REPORT.

In the year 1876 the subject of the treatment of drunkenness was brought specially to the attention of the City Council, and an order was adopted authorizing the Mayor to appoint a commission to consider and report upon the subject. Mayor Cobb, who was Mayor at that time, appointed Messrs. A. A. Miner, George C. Shattuck, and John E. Tyler to serve upon the commission referred to, and their report was presented to the City Council in October of the following year.

The Commissioners' report, coming as it did from gentlemen who had devoted much time to the consideration of the subject, and who were well qualified to deal with it intelligently, furnishes a fair and sufficiently full exposition of the subject and, being a very able paper, at the present time practically out of print, your committee have determined to reproduce it here in full, as follows : —

[*City Document 85. — 1877.*]“REPORT OF COMMISSIONERS ON THE TREATMENT
OF DRUNKENNESS IN CITY INSTITUTIONS.

TO HIS HONOR THE MAYOR:—

The Commissioners appointed by the Mayor of the City of Boston to consider and report on the treatment of drunkenness in the city institutions and in private asylums, and to ascertain what measures can be taken to reform the intemperate now under confinement in our institutions, beg leave to

REPORT.

(1.) Your Commissioners have visited the courts in our city before which persons are arraigned for drunkenness, consulting freely with the judges and officers of police. They have also several times visited the city institutions to which inebriates are committed, conferring with the Superintendent and other officers in charge.

Similar visits, involving like conferences, have been made to the corresponding institutions and officers in New York, Philadelphia, Baltimore, Worcester, Portland, Quebec, Buffalo, Chicago, and various smaller cities.

(2.) Under a deep sense of the frightful evils of drunkenness, upon which it is unnecessary here to enlarge, the officers of government in all these places appear to perform their duties in the execution of this department of criminal law with great fidelity and much painstaking consideration. With unimportant variations in different places, the laws and their execution are much the same. An inebriate found guilty before the courts is mulcted in a small fine with costs, and, in default of payment by himself or friends, is committed for a term varying from ten days to six months. The usual commitment in our own city is for thirty days.

RESULTS OF PRESENT METHODS.

(3.) The results of the law as it now stands, however faithfully administered, are extremely unsatisfactory. The fines imposed, if paid at all, commonly fall upon the family or friends already deeply wronged. The brief period of confinement, sufficient indeed to eliminate from the system the alcohol already imbibed, and secure a measure of physical recuperation, is quite insufficient to allay the cravings of

appetite, break up the habit of indulgence, or restore any considerable degree of self-respect.

The usual consequence, therefore, on restoration to liberty, is an immediate return to evil habits, re-arrest, re-conviction, and re-commitment, with as little hope of profit as before. Your Commissioners saw a woman, yet young, who had been thus committed fifty-seven times. They learned that another had spent eleven terms of thirty days each at Deer Island in one year, leaving a month within which to become eleven times amenable to the law, to be eleven times arrested, eleven times tried, eleven times convicted, and eleven times sent down to what would seem to be her normal home. Others have been met with who have spent years within prison walls, and who seem permanently unfitted for liberty and self-care.

CONDITIONS OF SUCCESS.

(4.) Your Commissioners find a general concurrence of opinion in regard to the conditions now wanting in order to secure the best moral and economic results. For the cure of confirmed or habitual inebriety, experience seems to show that at least one year is necessary; while, for extreme redeemable cases, two, three, or even more years are required.

An important, indeed an indispensable, auxiliary in this work is steady employment. It not only occupies the mind, tending to prevent the imagination from revelling in indulgence, everywhere a most fruitful source of demoralization, but it develops certain hardy elements of character essential to vigorous self-control. With commitment for longer terms, labor which is now valueless would become highly valuable; and the institutions which are now maintained at great expense might become, in a large measure, self-sustaining. The testimony of the Superintendent of our own House of Industry, with that of the Superintendent of the well-appointed House of Correction at Philadelphia, and of others, is explicit on this point.

A further result, and most important of all, would be the opportunity thus afforded for moral influence; for instructing the inmates in matters pertaining to sobriety, health, and character; and for building them up in those patriotic and manly purposes essential to a faithful discharge of personal, domestic, and civil responsibilities. Given the time herein contemplated, and means of occupation, and your excellent officers now in charge of this class of persons at Deer Island, keenly alive as they are to the exigencies of the situation, could doubtless show results as honorable to themselves as they would be gratifying to the city.

SEPARATION OF INEBRIATES FROM OTHER CLASSES.

(5.) A great unanimity of opinion is found by your Commissioners on another matter. While most of the females committed to the House of Industry, whatever may be the technical grounds of their conviction, have formed habits of indulgence in drink, and may properly be continued in the institution, and while tramps and vagabonds also may appropriately be subjected to the same discipline as inebriates, and mingle with them, thieves, burglars, and various others of the more criminal classes should not be associated with inebriates in the same institution. Their presence, it is felt, would tend to drag the inebriates down to their own level, and greatly prejudice the hope of their ultimate improvement. Whether this common estimate of relative character be sound or not, so widespread is the conviction in it that the propriety of such a separation of classes as is here suggested is on many hands confidently affirmed.

ELASTICITY OF METHOD.

(6.) Another opinion, held with equal confidence, is that some inebriates are much farther removed from, and are, therefore, with much greater difficulty restored to, the responsible condition of self-control than are others; thus requiring, for different persons, treatment through various periods and by various methods. And since many of the elements of the problem cannot be known beforehand, but can only be gained by a discreet and sympathetic study of individual character during many months of administrative experience, it will be found eminently wise to lodge a measure of discretion in the hands of the Superintendent, with such advisory authority as may be deemed expedient, to place persons under his care on probation, permitting them to go forth from the institution subject to certain prescribed conditions, and to recall them, without process, whenever those conditions shall be violated, to finish the entire period of commitment. It might be found expedient, also, to maintain a paternal oversight of those thus discharged on probation, not only for the purpose of securing conformity to the conditions, but also for counselling them in their enterprises, and saving their wages to themselves or their families.

EXPERIENCE OF ASYLUMS.

(7.) Your Commissioners have also visited most of the inebriate asylums of the country, besides attending the

convention of the superintendents of these asylums recently held in Chicago. They have thus enjoyed opportunities for protracted conference with gentlemen of large experience in the reformation of this class of persons. That experience is exceedingly important. It establishes the practicability of the reformation of inebriates. It shows that, with all the disadvantages under which these voluntary institutions labor, forty to fifty per cent. of those resorting to them are permanently restored to habits of industry and sobriety. The elements of weakness common to them all, aside from the question of time, are the lack of sufficient control over their inmates, and of adequate means of employing them. The admirable State institution at Binghamton, New York, which has a voluntary department, illustrates, in its somewhat exceptional experience, both the possible strength and the actual weakness of such asylums. With most excellent appointments, and ample means of employment, its inmates, committed under the laws of the State for a term not less than a year, are easily controlled, and are treated with marked success; while voluntary members are the chief source of difficulty, and present results relatively unsatisfactory.

(8.) Thus by the substantially unanimous voice of the men who have had most experience in dealing with inebriates, judges, officers of police, and superintendents of asylums, your Commissioners are led to recommend to the City Government

A NEW DEPARTURE

in the treatment of drunkards brought before the courts. Without at all entering upon the question of their criminality or penal deserts, they recommend that the treatment shall aim primarily at their reformation, leaving the matter of their just punishment to be incidentally though necessarily involved. To this end, when brought before the courts, they will not be sentenced to a given punishment, but *committed to an asylum* for such protracted period, one year or more, as experience has proved to be necessary, with discretion in the hands of the proper authorities to grant probationary absence on well-defined conditions, attended perhaps by a continued helpful oversight. With regular occupation and suitable educational and moral influences, a very large per cent. of these slaves of the cup may be restored to the dignity of good citizens.

FACILITIES AT HAND.

(9). The House of Industry at Deer Island, with slight changes and little expense, could be employed for this

purpose. The very considerable territory of the island will make extensive employment of labor in agriculture convenient. Ample workshops can be erected chiefly by the labor of the inmates of the institution.

The superintendent and chaplain indicate a lively interest in the views of your Commissioners, and would seem to be suitable officers to guide and administer the new institution. Thus, far better results, in regard both to morality and economy, would seem to be within our reach, and by substantially the same means.

Of course the aid of the Legislature must be invoked. New enactments granting the necessary power must be secured. Should the City Government approve this report, your Commissioners will be glad to render any aid in their power in connection with your legal advisers and the judges of the courts in the preparation of a bill that shall more clearly define the necessary powers and provisions, and enable the city to make what it is hoped would prove a successful appeal to our General Court.

THE DUTY URGENT.

(10.) Certainly the city fathers have a great many erring children, who can be so treated that not a few of them will be reformed, and made useful citizens. The cost of dealing with this class can be much diminished. Your Commissioners will be ready and happy to coöperate in so noble a work. They are satisfied that such action can be taken as will greatly diminish drunkenness with its dreadful evils. The work is a long one, and not to be done in a day, but it should be begun at once; and we may safely trust that all necessary knowledge and skill will be acquired as the work proceeds. Is it right to go on in the old way, and at great expense, to make the drunkard worse instead of better?

Respectfully submitted,

A. A. MINER,
GEORGE C. SHATTUCK,
JOHN E. TYLER,

Commissioners.

Boston, October 17, 1877."

Your committee believe that if the recommendations of the Commissioners, as presented in the foregoing report, can be carried into effect, the purpose for which the committee was appointed will be in a large degree accomplished. They therefore respectfully recommend the passage of the following order.

For the Committee,

CYRUS S. HALDEMAN,

Chairman.

Accepted. Sent down for concurrence.

HUGH O'BRIEN,

Chairman.

Ordered, That His Honor the Mayor be requested to petition the General Court, at its next session, for such changes in the law relative to the treatment of drunkenness as may be necessary to carry into effect the recommendations contained in a report of a commission on the treatment of drunkenness, printed in City Document No. 85 of the year 1877.

Passed.

Sent down for concurrence.

HUGH O'BRIEN,

Chairman.

CITY OF



BOSTON.

REQUEST

FROM

COMMITTEE ON PAVING

FOR AN

ADDITIONAL APPROPRIATION

FOR

BROADWAY EXTENSION.

BOSTON, December 20, 1883.

To the City Council: —

The Committee on Paving hereby represent that an additional appropriation will be required to complete Broadway Extension.

The appropriation and loan for Broadway Extension was \$400,680 21

The expenditures have been as follows: —

For land and grade damages	\$271,946 32	
For bridge over Boston & Albany R.R., retaining-walls, Albany and Tyler streets, and bulkhead between Harrison avenue and Washington street	104,028 08	
For sewers	527 10	
For grading and paving	23,529 32	
For advertising, printing, auction expenses, etc.	434 65	
Total expenditures	\$400,465 47	
Balance	214 74	
	<u>\$400,680 21</u>	

Amount necessary for the completion of Broadway Extension is as follows : —

For grade damages	\$8,000 00
For grading	4,423 84
For paving	15,500 00
For retaining-wall, Albany street	2,076 16
	\$30,000 00

For the Committee,

LUCIUS SLADE,
Chairman.

CITY OF



BOSTON.

REQUEST

BY THE

BOARD OF HEALTH

FOR A

TRANSFER OF APPROPRIATION.

BOARD OF HEALTH, 32 PEMBERTON SQ.,
BOSTON, December 20, 1883.

To the Honorable City Council:—

The Board of Health respectfully represents that, by reason of unexpected expenditures in the Quarantine Service, the regular appropriation for that department for the current year, amounting to \$16,400, will have been exhausted by the first of January next; and for the purpose of carrying on that department for the remainder of the financial year the Board of Health respectfully asks for the transfer, to the Quarantine Department, of the unexpended balance of the special appropriation for building the storehouse for infected cargoes on Gallop's Island, the said balance amounting to \$2,066.49.

The following is a detailed state ment of te expenditures already made in the Quarantine Department during the current year:—

For Advertising	.	.	.	.	.	.	\$20 17
Contingencies	.	.	.	.	.	.	260 47
Fuel	.	.	.	.	.	.	1,605 00
Hospital	.	.	.	.	.	.	361 63
Port Physician and Assistant	.	.	.	.	.	.	1,345 38
Printing	.	.	.	.	.	.	68 01
Repairs at Quarantine Station and on Steamer	.	.	.	.	.	.	4,448 58
Salaries	.	.	.	.	.	.	4,515 60
Subsistence	.	.	.	.	.	.	2,240 81
Supplies	.	.	.	.	.	.	822 92
Water-rates	.	.	.	.	.	.	100 00
Total Expended	.	.	.	.	.	.	<u>\$15,788 57</u>
Total Appropriation	.	.	.	.	.	.	<u>\$16,400 00</u>
Expended	.	.	.	.	.	.	<u>15,788 57</u>
Balance	.	.	.	.	.	.	<u>\$611 43</u>

Respectfully, for the Board of Health,

S. H. DURGIN,

Chairman.

CITY OF



BOSTON.

ORDINANCES OF 1883.—CHAP. 18.

CONCERNING THE CARE OF TREES IN
THE PUBLIC STREETS.

In the Year One Thousand Eight Hundred and Eighty-three.

AN ORDINANCE TO AMEND THE ORDINANCE RESPECTING
THE COMMON AND THE OTHER PUBLIC GROUNDS.

Be it ordained by the City Council of Boston, as follows:—

SECTION 1. The second section of chapter thirty-seven of the Revised Ordinances is hereby amended by adding in line six, after the word "city," the words, "which are in the charge of the City Council." Also, by adding to the said second section these words: "He shall also perform all duties in regard to trees which may be assigned him by vote of the Board of Aldermen."

IN COMMON COUNCIL, Dec. 13, 1883.

Passed. Sent up for concurrence.

GODFREY MORSE, *President.*

IN BOARD OF ALDERMEN, Dec. 17, 1883.

Concurred.

HUGH O'BRIEN, *Chairman.*

Approved, Dec. 18, 1883.

ALBERT PALMER, *Mayor.*

A true copy. Attest:

FREDERICK E. GOODRICH, *City Clerk.*

CITY OF



BOSTON.

REPORT

OF

COMMITTEE ON WATER

ON

SPECIAL REPORT OF THE BOSTON WATER BOARD,
PRESENTED TO THE CITY COUNCIL,
DECEMBER 6, 1883.

IN BOARD OF ALDERMEN, Dec. 24, 1883.

The Joint Standing Committee on Water, to whom was referred the Special Report of the Boston Water Board upon the condition and purity of the water supply (City Document 173, 1883), having reviewed said report, and carefully considered the statements and recommendations therein contained, respectfully submit their report, as follows : —

Your committee do not deem it necessary to take up in detail all of the topics discussed by the Water Board in their elaborate report, but desire to refer specially to some of the most important. Our citizens, as well as the members of the city government, are well aware of the critical condition in which the city is placed in respect to its water supply. The sources from which our supply is obtained are drawn upon to their fullest capacity to meet the ordinary consumption, and before any change in this state of affairs can be effected it will be necessary to either extend the sources of supply or reduce the consumption. It is the opinion of those competent to judge of the matter, that the present available water supply is sufficient for the real needs of the city, provided the consumption can be

reduced to a reasonable limit, and this reduction can be most easily effected by stopping the enormous waste of water which is continually going on throughout the city, and for which all classes of water-takers are responsible.

The measures adopted by the Water Board for checking this waste of water have been effectual as far as they have gone, and the results so far obtained in this direction are eminently satisfactory; and your committee agree with the Board that further appropriation should be made for extending the systems of inspection and detection, that have already been put in practice.

The necessity for extending the high-service system has been brought to the attention of the City Council year by year for several years past. It was urged by the former City Engineer, Mr. Joseph P. Davis, as long ago as 1875, and has been reiterated since that time by the Water Board and our present City Engineer, Mr. H. M. Wightman. The works are inadequate to fully supply the district covered by the system, while at the same time there are other sections of the city, now imperfectly supplied, that can be fully supplied only from the high-service.

The Water Board state in their report (p. 11) that "there are other reasons why some definite action should be taken by the City Council upon this important matter, among which may be mentioned the uncertainty which this department is under with regard to the system of piping for districts into which the pipes are yearly extended to accommodate the growth of population."

The committee gave a public hearing, recently, upon this subject, and the evidence presented at that time is published as an appendix to this report.

The various recommendations made by the Water Board are, in the opinion of your committee, the result of sound judgment and a careful and thorough consideration of the wants of the department; and, in the language of the Board, they are "of paramount importance, and very essential to the continued maintenance of an efficient, economic, and abundant water supply."

Having this view of the subject, your committee unite with the Water Board in recommending that the City Council provide the means required for the adoption of the several schemes the Board have suggested, namely:—

1. Extension of high-service (cost as estimated by City Engineer), ... \$778,800 00
2. The purchase of the property and franchise of the Jamaica Pond Aqueduct Co., \$100,000 00

3. For an amount sufficient to increase number of Inspectors to thirty . . .	\$6,000 00
4. For Recording Meters . . .	\$150,000 00
5. For Deacon waste-water service . . .	\$50,000 00
6. For sidewalk stopcocks . . .	\$50,000 00
7. For the protection of the water interests of the City at Pegan Brook and elsewhere . . .	\$14,000 00

The committee recommend that the required amount of money be raised by a special loan for the purposes enumerated. In closing, your committee desire to favor the claim of the Water Board to be credited for the value of the Beacon-Hill Reservoir, which has been taken by the city for court-house purposes. The claim is perfectly just and reasonable, and should be allowed whenever appropriation is made for the proposed new court-house.

For the Committee,

HUGH O'BRIEN,

Chairman.

MINORITY REPORT.

The undersigned, a member of the Committee on Water, is unable to concur with the majority in all the recommendations which they present in the foregoing report.

He dissents from that in regard to the appropriation of \$150,000 for recording meters, at the present time, and believes it should be referred to the consideration of the next City Council.

In regard to the High-Service Extension, while admitting the necessity in the near future, he desires, before joining in the recommendation of the majority of the committee, that the statement of the financial condition of the Water Department, which is now being prepared, should be first submitted to the City Council, in order that it may be clearly shown that the city can afford to enter upon the expenditure of so large a sum of money at present.

MALCOLM S. GREENOUGH.

I dissent from the recommendation of the committee in regard to the appropriation for the extension of the high-service.

E. C. MARSHALL.

THE HIGH-SERVICE SYSTEM.

REPORT OF A HEARING BEFORE THE JOINT STANDING COMMITTEE ON WATER OF THE CITY COUNCIL ON THE PROPOSED EXTENSION.

Boston, Sept. 26, 1883.

The committee met at 2 o'clock P.M., in the large committee room.

Present: Aldermen O'Brien (Chairman) and Kendrick; Councilmen Wise and Greenough.

The Chairman read the call for the meeting.

The CHAIRMAN. — You are aware that when this high-service system was first introduced the city was not as large as now. But the city has been extended and the service is not large enough for the districts which it covers. Perhaps Mr. L. Foster Morse had better state to the committee the reasons for the extension.

STATEMENT OF L. FOSTER MORSE, ESQ.

Mr. Chairman and Gentlemen: — I suppose the reason this room is not full is because the people residing on the lands above the seventy-foot grade have seen the reports that the Water Board have said there is necessity for it, and they supposed that the City Government will take care of them and furnish them with water. I have charge of considerable property. In one place I have six or seven houses. There are six houses on Sherman street, and one on Catawba street. Every month when the tenants pay their rent they ask if something cannot be done about the water. The tanks fill up sometimes, but on wash-days there are days when they have no water. Nevertheless, they have to pay the water bills.

We applied to the Water Board last year and they said they knew the extension of the high-service was needed; but they had no appropriation to do it with, and they could not help it. I said, "Cannot something be done?" They said, "We don't know." I said, "I guess something will be done by and by." And I think there will be.

In one location, bounded by Munroe and Dale streets, I think they are suffering more than in any other. It is easy to give them the high-service pipe. The pipes run around them on Dale street. The Water Board say it may affect the supply somewhere else where it is needed more than in that location. That was some four years ago, and the trouble may have been prevented if the high-service was supplied there.

A gentleman bought land on West Cottage street last year; he wanted high-service water, and to build houses and make taxable.

property ; but he said he could not build if he did not have the water. The Water Board said they would stretch the point and give him the water.

Now, when the citizens desire to have this water, they do not ask it as a favor, they have a right to it. I sold a lot of land at the corner of Moreland and Copeland streets for \$9,400. The building of the cost \$20,000. The low-service water will not answer for that house ; it will not come upstairs. They applied for the high-service the other day, and were told they cannot have it. It is pretty hard on the owner of that property. The City of Boston must give water to its citizens.

When Dorchester and Roxbury and all those places were annexed to Boston, they were told they were to have water. Now most of the high-service is used in Roxbury, Dorchester, and West Roxbury. Beacon Hill also gets it from Parker Hill ; but they used to get along without it. Their grade is not so high as that of other localities where the the water is refused to-day.

I think the Water Board should cut those people off, and give the high-service to people who need it badly, but is that not a responsibility which rests on the Water Board?

Now, the gentlemen who are here on this committee happen to know the necessity for high-service, — the Chairman, Mr. Wise, of West Roxbury, and Mr. Kendriken, of Roxbury. There are very few feet of high land in Roxbury but what needs it. Why, that little section in Roxbury pays one-tenth of the taxes of the City of Boston every year. It pays more taxes into the City Treasury than Charlestown and South Boston together, and they pay for water besides, when they have it ; but if they do not have the water — they are entitled to it for fire purposes as well as everybody else, and they should not have their rates raised because the water is short.

Since this hearing was advertised I have seen a great many men, and have been to the Water Board many times, to see if we could not get the high service. As I have said, the reason this room is not crowded is that the people know that we need the water, and they believe the City Government will take care of them. Citizens on the low land have water, but the people who live on the land they did not make, which is seventy feet above high water, must have the high-service. I think the City Government should see to it. Last year I went around and tried to canvass the City Council, and said, “ Why don’t you give us the high-service ? ” They said, “ We never will give any money to the Water Board until they know something. ” You have a new Water Board now, and I suppose you will give to them.

THE CHAIRMAN. — You are aware of the fact that building operations are, to a large extent stopped on account of the lack of the high-service ?

A. I lose sales of land almost every day because I cannot give them the high-service. I will say, without fear of contradiction, that more buildings have been built, between Dudley street and Grove Hall, than in any other part of the City of Boston, the Back Bay included, — more single dwelling-houses, — and every one of

them should have the high-service above Dudley and St. James streets. I was assessor for that district several years, and many years we had 120 new houses. People must go there. They want to go there, and I could recently have sold five or six houses, but the people will not go there without they have water. It is too expensive to sink wells. Being a portion of the City of Boston they are entitled, by right, to have water.

Alderman KENDRICKEN. — Have you heard any complaint of a lack of water at Hotel Putnam?

A. I did hear so; and there was so much complaint that the Water Board did condescend to lay the pipe. There is a building which will cost about \$100,000. The man who built it does not think he should be denied water, and they did lay a special pipe for it.

Q. As I understand, the proprietor is laying the foundation for another building on still higher ground?

A. Yes, sir; and, if he cannot have the high-service, it is no use to him. The building will cost somewhere about \$200,000. Let it be known that you cannot have the high-service, and the value of the land will shrink one-half, and the City Treasury will get so much less in taxes. It should be borne in mind that in assessing property you fix a certain amount for the land, and next you add the value of the building. It is safe to say that 90 per cent. of the money put into buildings is not taxed until it shows itself in completed buildings, because it is drawn from somewhere else. Something should be done to encourage building, so as to keep the city's money within its limits. There is room enough for many more buildings. We are growing fast, and will grow faster if we have plenty of pure water, good in quality as well as quantity.

Q. Do you know anything about the plan of opening all the vacant land between Moreland and Warren streets?

A. Yes, sir; and, if they cannot have the high-service, no buildings will be built there. It is safe to say that from St. James street away out into Dorchester, following along to West Roxbury, and after you get to Forest Hills and upon the high lands there, all that territory should have high-service. I am told it is about 10,000 acres of land. The way to contemplate 10,000 acres of land is to remember that before annexation the whole area of Boston was about 2,000 acres. Now you have an area which has been increased to a considerable extent even since the Back Bay has been filled up. You will find by the report of the Annexation Commissioners, made in 1867, that they gave an area to East and South Boston and Boston proper of 2,000 acres. Now, if you have 10,000 acres that need high-service, that is five times what the area of Boston was when outlying districts were annexed. I have no doubt there is a larger area than that which needs the high-service. Since Roxbury was annexed, in 1868, they built the little stand pipe on the Fort for that part of the territory which needed the high-service, which was the high land back of the Norfolk House and a portion of the land about Warren street. Call that 700 acres, and I suppose that very few men can tell where the line was between Dorchester and Roxbury up about Grove Hall. All that, and on

the Dorchester side of the hill needs high-service just as much as Roxbury. West Roxbury has been annexed since. That small engine for the high-service works was intended for a small territory. There have been more than 500 houses built since that, which are supplied from those works, right in that locality. The number of houses has more than doubled. But they have added to the work of that engine the carrying of water to South Boston and Beacon Hill, and extended it out to Dorchester. Then there is another thing. Those people that enjoy the high-service, if I understand it, have their supply from an engine which is used up to its full capacity, and if it should happen to break down all the supply you have left is on Parker Hill.

Mr. GREENOUGH. — They have three engines.

Mr. MORSE. — Do they use two or one?

Mr. GREENOUGH. — I think they use the two small ones.

Mr. MORSE. — There would be a great trouble about the supply if the engine should happen to break down.

Alderman KENDRICKEN. — Have you heard any complaint of a lack of water on Elm Hill avenue, where they are building?

A. No; but the houses are not occupied yet. There is a large territory still unoccupied.

Q. They are building there now?

A. Yes, sir; and the Harris estate will be in the market in a short time.

Mr. GREENOUGH. — Do you know of any buildings that would be put up, but for the lack of water?

A. Yes, sir; and I know I lose sales of land.

Q. That is your experience?

A. Yes, sir.

Q. More than once?

A. Yes, sir. I know I paid water-tax on houses where the water gives out, and where they are not on the high-service, but only 200 feet from the high-service pipe, and yet the Water Board say they cannot give it to them.

Q. How high does the water rise in those houses?

A. In the nights their tanks fill up. The grade of the street is 75 to 80, and the houses are perhaps 20 feet above that. It is on the outer edge of the high-service, and everybody knows the water loses headway going so far. Then everybody knows it is very necessary for fire purposes, especially in a district where there are so many wooden houses.

STATEMENT OF WM. H. HALLOWAY, Esq.

Mr. Chairman: — I haven't much to say except that I have been before the Water Board several times. I have a large tank in my house, otherwise I would not have water there most of the time. I am on Laurel street, in the same circuit that Mr. Morse spoke about.

The CHAIRMAN. — How long have you been troubled with the lack of the high-service?

A. About four years. I was there three years ago, and there

has been a great deal of building going on there, and a great deal more water is used than formerly, and it has decreased the pressure very much. I have a friend that I expected to see here, and he cannot get his washing done on Monday because of the lack of water. I see another friend here who is in the same position.

Mr. GREENOUGH. — You get water enough in the daytime, and at night it does not rise?

A. I have enough now because I have a large tank ; but if I had a small tank I should be without it during the day.

Q. Will you please show me your house? I do not know where Laurel street is. (Witness pointed out his house on the map.) How far is the high-service from you?

A. (Witness explained the relation of his house to the high-service system, and the distance therefrom.) I have seen Mr. Jones in regard to that matter, and he went down in the cellar and opened the stopcock, expecting to see the water spurt out, and it only came out about a foot. I use the hose, and cannot play across the street with the smallest nozzle.

Q. In the night it rises?

A. Yes, sir ; because we do not use the water, and have a large tank. Mr. Higgins is one of the largest land-owners out there, and the service is not very high at his place, I think.

STATEMENT OF PETER HIGGINS, Esq.

Mr. Chairman:—I do not think I can really add anything to the interest of this meeting by anything I can say. The pressure upon my side of the street, on Rockland street, is better than at some other places, and we do not feel the need of it so much. But my neighbors all around me complain. Mr. Blodgett complains.

STATEMENT OF MRS. CHARLES LITTLEFIELD.

In regard to this lack of water, Mr. Chairman, we merely came in to listen. We are entirely unprotected on Clarendon Hills. There was a fire out there recently, and before the firemen could get to us the fire was entirely done. There has been hardly enough water to be used. There are hydrants below us. I think my line reaches down some 500 or 600 feet, and it is very difficult to get water at all. The water would not come to us only with a little bare flow into the cellar ; otherwise we are entirely unprotected from fire. I think that when we pay our taxes and water bills we ought to have plenty of water, for people would go out there if it were not for that, as it is a very desirable situation, and the lack of water is very much against it. The first thing they ask is in regard to our water supply, the fire department, and schools. Then, of course, all beyond us is in a worse condition than we are.

The CHAIRMAN. — All your neighbors are in precisely the same condition that you are?

A. Yes, sir; and even worse. At present most of the wells are dry. A large number of feet of hose would have to be carried through our land to protect us. I do not think some of the neighbors have been able to wash for the last week or two. It is a very poor state of affairs. Water is a necessary thing, you know, for domestic purposes.

STATEMENT OF OWEN NAWN, Esq.

The CHAIRMAN. — I see Mr. Owen Nawn here. He is a large landed proprietor out in that district. Perhaps he can give us some information on this subject.

Mr. NAWN. — I do not think I can add anything to what Mr. Morse said. He has covered the whole ground. I have some land on Maywood street, where we cannot have water. At my house we have to carry water in a basin upstairs.

Q. You feel, as a large land-owner, that you are prevented from selling land in that neighborhood on account of the lack of high-service?

A. Yes, sir; it is a great injury. The first word asked is if we have the high-service.

Alderman KENDRICKEN. — You are a little higher up on Warren street than the Hotel Putnam?

A. Yes, sir; near Quincy street. It is very much wanted there indeed.

STATEMENT OF EX-ALDERMAN GEORGE B. FAUNCE.

Mr. Chairman: — I just happened in here, and hardly know what there is to be said. If the point is that we need the high-service in Roxbury, I can say that I know it is impossible for us to get along without it. We must have it, and we must have increased facilities for water supply. I have charge of a considerable number of houses in Roxbury, probably as many as anybody else. I applied to the Water Board for the high service for the Hotel Putnam, and they said they could not give it. But, after a long while, and with a good deal of something besides coaxing, we got it. Now I have in charge another building, which will be five stories high, at the corner of St. James and Regent streets, and Warren street. We expect to put in forty families there, and of course, we expect the high-service, and we must have it. But, of course, if we have got to the limit of the capacity of the high-service works, something must be done to provide us with water, or else this two hundred and fifty thousand dollar building will not be worth anything. I do not know about the facilities there, and I am entirely unprepared to say much.

I have sufficient water at my house; but between Walnut avenue and Warren street, on Sherman street, I have complaints, and hear some complaints all about that neighborhood. For the same reason there were four frame dwelling-houses burned right in the middle of the day on Laurel street, for want of water. They would do better in a country village than that. I do not know the reason for this; I only state the facts. I am very much interested in the

question of a water supply. I have control of some 200 tenements, and a large amount of insurance. I have been engaged in the business many years, and I say it is absolutely necessary that we should have a larger supply for the high-service district. There is a large building going up on Dudley street, owned by Mr. Brooks. As I understand, we cannot have the high-service in the Hotel Putnam, and if that is the case — I understand it is down at the foot of the hill, and we must have it even if the facilities have to be increased. There is no use talking about it, we must have it.

The CHAIRMAN. — What is the effect of a lack of supply upon the sale of vacant land?

A. Without a water supply there is no sale.

Q. You think it affects the sale of land?

A. Yes, sir; there is no facility for obtaining tenants without there is water in the house.

Alderman KENDRICKEN. — Do you hear any complaints in the vicinity of Crawford street?

A. I don't. I am not familiar with the tenants there. I have property in charge all along through Wyoming street and in that vicinity. I may be mistaken, but I take it for granted that we have Cochituate water there.

STATEMENT OF D. F. KNIGHTS, Esq.

Mr. Chairman: — I cannot say that I am so large a real-estate owner in the Highlands as some gentlemen mentioned are; but in the particular locality that I shall speak of, just at present I am plenty large enough real-estate owner. I live on Dale street, very near Mr. Halloway, and I am more specially interested in that locality. I have some little data which I got together two years ago, when a combined attempt was made by several owners and occupants there at that time to get the high-service. There may be some information for you in them. I went before the Water Board, and was informed that we were too low, and that we did not need the high-service. I find that we in Dale street are about grade 75. I found upon gathering the information that a portion of that territory between Walnut avenue and Washington street was supplied by the high-service, which is at a grade about 12 feet lower than we are. Some questions have been asked about the lack of water affecting the sales of real estate. The territory on Catawba street or Ottawa street, I am not certain which, at least there is a large piece of vacant land on Catawba street; I know a resident of Boston who contemplated the purchase of that land, with the intention of erecting a dwelling-house. He told me some four or five months ago that he had abandoned the purchase because he ascertained that there was no high-service there. I have lived in the house I am now living in, eight years, and I have been troubled for four or five years. I get water in the first story very little, — it just runs, — and none at all in the next story when we are using it on the first floor or in the laundry. From such information as I have been able to gather, it is a mistaken idea of the Water Board that they have put that out as an argument why they

would not give us more high-service. From the information I have been able to gather, I think they use little or no more water where they have the high-service. I do not think the amount of water consumed would be much more, if any more. As Mr. Morse remarked, I presume the reason there are no more here from Dale and Sherman streets to-day is because they feel that the subject has already been exhausted by others, and that they have done all they can. We have been trying for about three years, by petitions, and thus far all our attempts to get a little more pressure have been in vain. All our efforts to get a little more water have been futile.

The CHAIRMAN. — The committee will be happy to hear from any other gentleman present. Perhaps Mr. Blodgett might give us a little information.

STATEMENT OF C. H. BLODGETT, Esq.

The CHAIRMAN. — You are a builder, Mr. Blodgett?

A. Yes, sir. I do not know as I can say anything more than has been said. For many years the complaints have been very great for more pressure and more water. We get water in the first story; but when it is used in the first story it runs not at all in the second story through Walnut avenue and Warren street. We have been compelled to buy water for drinking purposes for many months. We do not consider the water fit to drink at all without a filter. It don't run through the filter, but by taking off the filter we manage to get along in some sort of shape. I think we should have more water for all purposes, fire, hose, etc. We had a little fire in the grass, and there wasn't sufficient pressure to put out that fire.

Q. What effect does it have upon building, so far as your experience goes?

A. I think it is quite a serious question. It is the first question everybody asks when contemplating the purchase of land in that vicinity. It cannot be said that we have a proper pressure.

Alderman KENDRICKEN. — Do you know anything about the deficiency of water in the new building on Edgewood and Maywood streets?

A. Not personally.

Q. They have the low-pressure there?

A. Yes, sir.

The CHAIRMAN. — The committee would be glad to hear from any other gentleman in relation to this matter. I cannot call all the gentlemen by name.

Mr. HALLOWAY. — It is not claimed that they use any more water by having the high-service?

The CHAIRMAN. — No, sir. What they want is more water.

Mr. KNIGHTS. — The Water Board claimed that they haven't the water to give them, and that they would use more.

Mr. GREENOUGH. — They claimed that they could not put in the high-service without extending the system.

The CHAIRMAN. — I understood Mr. Knights to say that he had some figures.

Mr. KNIGHTS. — They alluded to the height of the street. Mr. Kendricken asked the question if they needed the high-service on Elm Hill. A gentleman stated to me about a month ago that when he was soliciting myself, with another gentleman, to buy a lot of land there, one of the questions I asked was in regard to the water, and he said that arrangements had been made to get the high-service up there. I do not know that he was talking about this, or not.

The hearing was then closed.

[DOCUMENT 184 — 1883.]

CITY OF



BOSTON.

REPORT

ON THE

SCHOLFIELD BEQUEST OF \$50,000

TO THE CITY,

FOR THE

USE OF THE PUBLIC LIBRARY.

IN COMMON COUNCIL, December 20, 1883.

The Joint Standing Committee on the Public Library, to whom were referred the message from His Honor the Mayor, and the accompanying letter from Joseph Scholfield, executor of the will of Arthur Scholfield, relating to a bequest of \$50,000 to the city for the use of the Public Library, beg leave to submit the following

REPORT.

Arthur Scholfield, the testator, whose liberal bequest is now offered to the city, was born in Boston on the 7th day of October, 1800. He was the son of Isaac Scholfield, merchant, and Sarah Chickering Scholfield. He was educated in our public schools, and was for a time a pupil in the Latin School; but, owing to the uncertain state of his health, he was compelled to forego a college education. He entered into business with his father, and having acquired a fortune which was ample for his moderate tastes, he gave up mercantile life for the pleasures which literature and scientific experiments gave him. He was a great reader and fre-

quenter of libraries. His home was among books, and he became learned in eight languages.

In 1850 he moved to New York, and, with the exception of a short residence in Springfield, continued to reside there until he died, on the 17th day of January, 1883, leaving two sisters and a brother as his next of kin.

He made his last will in 1872, and by it gave the sum of fifty thousand dollars, the bulk of his fortune, to his native city for the use of its Public Library; *provided*, the city would pay the income thereof to his brother Joseph during his life, and, in the event of his death, to his sisters Ann and Ellen during their lives. He also gave all his books, excepting such as his brother might wish to retain, to the Library; and your committee is informed by that brother that these books, numbering nearly a thousand volumes, will in due time be delivered according to the wishes of the testator.

The committee respectfully recommend the passage of the following resolve and orders accepting the bequest.

For the Committee,

JOHN H. LEE.

Resolved, That the City of Boston gratefully accepts the bequest of fifty thousand dollars, made by Arthur Scholfield for the use of the Public Library, and will pay over the income thereof, in accordance with the provisions of the will; and, as a memorial of the testator, will, after the termination of the life estates created by said will, hold said bequest, properly invested, as the Scholfield Public Library Trust Fund.

Ordered, That His Honor the Mayor be, and he hereby is, authorized, in behalf of the city, to execute an indenture between the City and Joseph and Ann and Ellen Scholfield, being the next of kin, and the said Joseph being the residuary legatee, of the testator, providing that, upon payment of said bequest to the City Treasurer, and the release of all claims except the life estates reserved in said will, the same shall be invested in certificates of indebtedness of the City of Boston at par, and the income of not less than four per cent. per annum, free from all charges, shall be paid during the respective lives of the said Joseph, Ann, and Ellen, according to the provisions of said will; and that, upon and after the death of said Joseph, Ann, and Ellen, the city will hold said bequest, so invested, as the Scholfield Public Library Trust Fund, subject, however, to the right of the city to reinvest the same from time to time as the Mayor and

City Treasurer for the time being may deem best, and will pay to the Trustees of the Boston Public Library the net income of said Trust Fund, to be from time to time expended by said Trustees in the purchase of books of permanent value for said Library.

Ordered, That the City Treasurer be, and he hereby is, authorized, in behalf of the city, to receive said bequest of fifty thousand dollars from Joseph Scholfield, executor of the last will of Arthur Scholfield, and to invest the same in the City of Boston Water Loan, authorized to be issued under an order of June 2, 1883, at par, bearing interest at the rate of four per cent. per annum, and to pay the income thereof during the respective lives of Joseph, Ann, and Ellen Scholfield in accordance with the provisions of said will of Arthur Scholfield.

IN COMMON COUNCIL, Dec. 20, 1883.

Ordered to be printed, and assigned to the next meeting at 8 o'clock P.M.

W. P. GREGG,

Clerk of the Common Council.

CITY OF BOSTON, EXECUTIVE DEPARTMENT.

To the Honorable the City Council; —

I hereby transmit, for the consideration of your honorable body, the accompanying communication from Mr. Joseph Scholfield, of New York. It conveys notice of a very generous bequest by the deceased brother of Mr. Scholfield, Mr. Arthur Scholfield, formerly also of New York, to the Public Library of this city. Mr. Scholfield was born in Boston, early retired from business, and, thereafter, led a life devoted to books and culture. His gift is an affectionate remembrance of his native city, and an earnest expression of his love of letters. The City Council will not fail to notice the very cordial and affectionate coöperation of the brother and sisters of Mr. Scholfield in seeking to promptly execute his will and last wishes. All questions relating to the validity of the bequest to Boston, and all legal privileges as to the time of its payment are waived, and it is desired by the heirs to the estate left by Mr. Scholfield that arrangements for the reception of the money bequeathed to the city shall be made by your honorable body before the expiration of the current year. The communication indicates the desire of Mr. Scholfield's family that the money "should constitute a fund, the

income of which, upon the termination of the life estates, shall be used for the purchase of books of permanent value for the Library." I cannot doubt that it will be the pleasure of the City Council to gratefully fulfil their wishes.

Very respectfully,

ALBERT PALMER,

Mayor.

December 13, 1883.

BOSTON, Dec. 9, 1883.

To His Honor the Mayor and the City Council of Boston: —

GENTLEMEN, — I have the honor to inform you that my brother, Arthur Scholfield, born in Boston, and much attached to his native city, died in New York, January 17, 1883, and by his last will and testament bequeathed to the City of Boston, subject to certain life estates, the sum of fifty thousand dollars for the use of the Boston Public Library. Questions relative to the validity of the bequest have been suggested: but the two sisters and the brother of the deceased, being his only heirs at law, and the latter his residuary legatee, believing it to be in accordance with the intention of their brother that this sum should constitute a fund, the income of which, upon the termination of the life estates, should be used for the purchase of books of permanent value for the Library, will join in whatever agreement may be necessary to carry out his wishes.

Upon the execution of such an agreement, I shall be happy to pay over the said sum of fifty thousand dollars to whomsoever may be appointed to receive it.

I am very respectfully yours,

JOSEPH SCHOLFIELD,

Executor of the Will of Arthur Scholfield.

IN COMMON COUNCIL, Dec. 13, 1883.

Referred to the Committee on the Public Library.

GODFREY MORSE,

President.



AN ORDINANCE

IN RELATION TO

HAWKERS AND PEDLERS.

IN COMMON COUNCIL, Dec. 20, 1883.

Be it ordained by the City Council of Boston, as follows: —

SECTION 1. No person shall sell or offer for sale on any street, any fish, lobsters, oysters, or shell-fish of any kind, or any fruit or vegetables, except by permission of the Board of Health, and under the following regulations: —

First, — All vehicles or receptacles for the transportation of the above-named substances shall be made and kept in such condition as will prevent the escape of any of their contents, or the odor thereof, and entirely conceal the contents from view. They shall be kept at all times in a cleanly condition. They shall be inspected the first Monday of each month, at the city stable in North Grove street, by an inspector of the Board of Health.

Second, — Every vehicle or receptacle used for the above purpose shall have the name of the owner and number of the vehicle, or receptacle, in letters and figures two inches in size, painted thereon, and also the number on the box in some conspicuous place.

Third, — No hawker or pedler shall cry for sale, or announce by bell, horn, or other instrument, the sale of any of the aforesaid articles, in any street of the city, between the hour of sunset and eight o'clock the following morning.

Fourth, — The Board of Health may in its discretion revoke any permit granted to any hawker or pedler who appears to said Board wilfully to have violated these regu-

lations, or otherwise be guilty of misconduct tending to disturb the peace and comfort of the inhabitants.

SECT. 2. Every hawker or pedler violating any of the provisions of this ordinance, shall be liable to a penalty not exceeding twenty dollars for one offence.

IN COMMON COUNCIL, Dec. 20, 1883.

Read and assigned to the next meeting, at 8.30 o'clock P.M., and ordered to be printed.

W. P. GREGG,
Clerk of the Common Council.

[DOCUMENT 186 — 1883.]

CITY OF



BOSTON.

REQUEST

OF THE

Directors for Public Institutions

FOR

AN ADDITIONAL APPROPRIATION FOR THE
STEAMER "J. PUTNAM BRADLEE."

OFFICE OF THE BOARD OF DIRECTORS FOR PUBLIC INSTITUTIONS,

NO. 30 PEMBERTON SQUARE,

BOSTON, Dec. 24, 1883.

To the Honorable the City Council of Boston: —

GENTLEMEN, — The Board of Directors for Public Institutions respectfully report, that the appropriation for the steamer "J. Putnam Bradlee," for the current year, has been expended, and that an additional sum of \$2,500 will be required to defray the running expenses for the remainder of the financial year.

The appropriation for the year was smaller than the amount requested by the Board, — the City Council having reduced the estimate of the Board to the amount of \$900; and considerable extraordinary expense was incurred in putting in the new boilers, in consequence of a large amount of extra joiner's work to be done to strengthen the floor-timbers for the new boilers. The Directors are of the opinion that the \$2,500 required for the Steamboat Appropriation can be spared from the Pauper Expenses Appropriation; and they hereby respectfully ask the City Council that this amount be transferred.

Expenditures on account of steamer "J. Putnam Bradlee,"
including draft payable January 1, 1884:—

Manning	\$6,068 00
Fuel	2,668 00
Repairs (ordinary)	487 02
Repairs (special, on account of boilers):—	
Carpenter-work	\$887 35
Joiner-work	522 83
Plumbing	494 80
New smoke-stack	192 39
Machinery	186 21
Iron-work	360 22
	2,643 80
Waste and oil for machinery	135 14
Rent of Dock	1,500 00
Water Rates	200 00
Ship Chandlery	112 31
Custom-House Charges	70 20
Miscellaneous small items	94 58
Total Expenditure	\$13,979 05
Balance of Appropriation	20 95
Total Appropriation	<u>\$14,000</u>

For the Directors,

Respectfully,

A. T. WHITING,

President.

IN BOARD OF ALDERMEN, Dec. 24, 1883.

Referred to Committee on Finance.

FREDERICK E. GOODRICH,

City Clerk.

CITY OF



BOSTON.

REPORT

OF

COMMITTEE ON LICENSES,

CONCERNING THE

SAFETY OF THE BIJOU THEATRE

IN CASE OF

FIRE OR PANIC.

IN BOARD OF ALDERMEN, Dec. 24, 1883.

The Committee on Licenses, who are directed to report whether the Bijou Theatre is provided with sufficient means of egress, in case of fire or panic from any cause, for the employés and audience; and also whether said theatre complies with the regulations of this Board in relation to the licensing of places of public amusement, beg leave to submit the following

REPORT.

Your committee have made a careful examination of the theatre, and have consulted with the Inspector of Buildings, under whose supervision the building was altered to its present purpose, and with the architects who made the plans for the alterations. Communications from these persons and from the Fire Commissioners are herewith submitted.

Your committee are of the opinion that every possible precaution has been taken to guard against a fire occurring in the building, and to provide for its immediate extinguishment in case it should occur. The building is substantially fire-proof, and there appears to be no possibility for a fire to spread, in case one should occur, so as to endanger either the

audience or employés. The means of escape are ample. The house, even when crowded to its greatest capacity, can be emptied in $5\frac{1}{2}$ minutes, and can be emptied on ordinary occasions in $3\frac{1}{2}$ minutes. Besides this, the entire audience can be accommodated in the lobbies, which are fire-proof. For particulars relating to the construction of the building, the committee refer to the report of the Inspector of Buildings, herewith submitted; and, in answer to the order of inquiry, they would say that the Bijou Theatre is provided with sufficient means of egress in case of fire or panic, and that it does comply with the regulations of this Board in relation to licensing places of public amusement.

For the Committee,

CHARLES V. WHITTEN,

Chairman.

DEPT. FOR THE SURVEY AND INSPECTION OF BUILDINGS,
OLD STATE HOUSE, Dec. 24, 1883.

To Hon. CHARLES V. WHITTEN:—

DEAR SIR, — Your communication duly received, and, in compliance with your request, I submit to the Committee on Licenses a full transcript of premises 543–547 Washington street, and also brick building in rear, as per plans and record on file in this office. This estate is owned by Hon. Charles Francis Adams, and occupied as follows: On Washington street, 543–547, the lower story for store purposes, the upper parts for suites, for lodging, and for offices, and is leased by the Boston Bijou Theatre Company. The upper story of rear building is occupied by said company for theatrical purposes, and known as the Bijou Theatre. These buildings, respectively, in their construction have in their external walls the following thicknesses, viz., 20 inches to the second story and 16 inches in all stories above, which comply in all particulars to the requirements of the Building Act. This theatre has a width of 58 feet, a depth of 63 feet, and a height of 40 feet over auditorium, and 60 feet over stage, and a flat roof with composition roofing. Internal construction: The floor of auditorium is fire-proof, being covered with a concrete 6 inches in thickness. There are three aisles in auditorium, two outside, each 3 feet in width, and a centre or main aisle (direct to outlet) 4 feet 7 inches in width. The seating furniture consists of stationary iron seats, with a full seating capacity of 494. This has one main outlet 14 feet 8 inches in width (enclosed by woollen curtain), and three ad-

ditional outlets or escapes in case of fire or panic. The balcony (with stationary iron chairs capable of seating 326 persons) has a direct outlet to front building on Washington street 12 feet in width, two broad staircases to auditorium and two additional outlets to fire-escape ladders by way of the stage.

The stage has a width of 58 feet and a depth of 30 feet, and is furnished with three tiers of dressing-rooms. The proscenium wall, or partition, is constructed of fire-proofed blocks. The within described building, formerly occupied as the Gaiety Theatre, was remodelled under permit 1,583, of 1882, issued by this department to Messrs. N. J. Bradlee & Co., architects, and Messrs. Thomas J. Whidden, John J. McNutt, and John Mack, master mechanics. These alterations were made by reason of a demand from this department for better protection against fire and for more adequate means of egress for patrons and employés. *Requisition:*

1st. All combustible materials to be removed from walls and ceilings; proscenium wall to be rebuilt of fire-proof material; fire-proof ceiling to be substituted for present one; all plastering to be direct on brick walls, and exit of auditorium to be increased from 9 feet 9 inches to 14 feet 8 inches; that fire-escapes to the roof be constructed; also, escapes from stage and each dressing-room by balconies and step-ladders; balcony to be furnished with a direct opening 7 feet 1 inch in width, with a clear opening of 250 square feet, leading to stairway in a separate building (front), said stairway being 4 feet 10 inches in width.

Occupants of dressing-rooms have means of escape to each side of the balcony by means of doors through the proscenium wall.

I think I have submitted enough detail to show conclusively that every precaution possible has been taken by the owner and managers of this theatre to protect, as far as circumstances will allow, the public and employés against fire or panic. As Inspector of Buildings, allow me to say in reference to all theatres, that I do not approve of the auditoriums being located above the grade of the street; but as they are so located, all precautions should be taken to secure the public against dangers arising from fire. This has been done in this theatre, and I personally regard it as safe from fire as it is possible for a theatre to be made by alteration. The precautions taken to guard against fire, together with the means at hand to extinguish, render the liability to fire possible, but quite improbable. The stage is furnished with high-water service, hose, etc., attached, and so arranged as to flood any part of the stage in one minute. In addition to this

there is a two-inch perforated iron pipe encircling the proscenium arch, supplied with high-water pressure, which would form a complete water curtain between the stage and auditorium. Also, there are similar iron pipes running between the border lights, parallel with the stage. Besides this the managers have supplied the dressing-rooms, stage, and entire auditorium with automatic sprinklers, fusing at 165° Fahrenheit. There is also located on the level with the balcony a large-sized Harkins fire-extinguisher, with 50 feet of hose, ready for immediate use. The theatre is lighted with the Edison incandescent light, and is arranged in the most satisfactory and secure manner, the machinery for producing the light being located some distance away from the theatre. The gas arrangements, in case of accident to the electric light, are such that the theatre can be illuminated in five seconds. With the combined seating capacity of auditorium and balcony there is a sufficient retreat, in case of emergency, outside of the theatre building in corridors and annex, to take care of the entire audience without going into the street. Accompanying this report is a diagram of theatre and its exits.

Respectfully submitted,

JOHN S. DAMRELL,

Inspector.

OFFICE OF NATHANIEL J. BRADLEE, No. 18 PEMBERTON SQUARE,
BOSTON, Dec. 24, 1883.

Hon. CHARLES V. WHITTEN, Chairman Committee on Licenses: —

DEAR SIR, — In reply to request made to me in your letter of the 22d inst., I would say that the building now occupied by the Bijou Theatre was not erected by me or under my direction; but, when the lease was made by Mr. Adams to the present occupants, it was entirely remodelled above the first floor, under the superintendence of myself and Messrs. Winslow and Wetherell, of my office, and all the changes were made with due regard to safety in case of fire, both to the audience and employés. The alterations made were radical. As I did not believe the Gaiety Theatre was a safe place in case of fire, a new additional staircase was erected from Washington street; iron bridges constructed to connect the front and rear buildings; new exits made from the rear of the stage to the adjoining estate on Mason street (to be used only in case of fire); all furrings were removed from the walls to prevent the rapid spread of fire from one part of the

building to another, and the plastering placed directly upon the brick-work. For the same reason the ceilings were wire-letticed and a fire-proof partition was erected between the auditorium and the stage. The main entrance from Washington street to the theatre is built of fire-proof materials, and to-day it is the only theatre in Boston which has a fire-proof entrance and exit. The flooring between the stores and the theatre is covered with concrete, so that no fire can pass from the stores to the floor above without giving ample time to empty a building ten times the size of the Bijou; and I have no hesitation in saying that it is, in my opinion, the safest of the five theatres now constructed on the second story in this city, and as safe, if not safer, than the first balcony of any of our theatres. I also consider the introduction of the Edison electric light a great element of safety.

Very truly yours,

NATH. J. BRADLEE.

OFFICE OF THE BOARD OF FIRE COMMISSIONERS,

CITY HALL, BOSTON, Dec. 24, 1883.

Alderman CHARLES V. WHITTEN:—

DEAR SIR, — In reply to yours of the 22d inst., in behalf of the Committee on Licenses, requesting information as to whether the Bijou Theatre is provided with sufficient protection against fire, the Board of Fire Commissioners begs leave to report that the management of the theatre have supplied automatic sprinklers and skylights in and over the stage; also a chemical extinguisher on wheels, fire axes and buckets, with a sufficient amount of hose to guard the stage in case of fire. One of their employés has been recommended to this Board as a skilled fireman, and is at all times upon the stage during performances. In the judgment of this Board the Bijou Theatre is as well supplied with appliances for the extinguishment of fire upon the stage as any theatre in the city.

Respectfully submitted,

HENRY W. LONGLEY, *Chairman,*
For the Board of Fire Commissioners.

CITY OF



BOSTON.

AN ORDER

REQUESTING

HIS HONOR THE MAYOR TO PETITION
THE LEGISLATURE

FOR

AN ACT TO CREATE JUDGES OF ELECTION.

IN COMMON COUNCIL, December 27, 1883.

Ordered, That His Honor the Mayor be directed to petition the Legislature, at its next session, for the passage of an act to create judges of election substantially in the manner set forth in the accompanying draft.

AN ACT TO CREATE JUDGES OF ELECTIONS IN THE CITY
OF BOSTON.

SECTION 1. There shall be annually appointed by the Mayor of the City of Boston, with the approval of the Board of Aldermen, in the month of September, five persons in each ward to be judges of elections, who shall be legal voters in said city. They shall hold office for the term of one year, and until their successors are appointed and qualified.

SECT. 2. The City Council of Boston shall, from time to time, provide in each ward a suitable room for the use of said Judges of Election, as hereinafter set forth.

SECT. 3. In every precinct, at the close of the polls at every election, the precinct officers shall securely fasten the boxes in which the ballots have been deposited, without removing any of such ballots, and transmit the same to the

place appointed in the ward, of which the precinct is a part, for the sessions of the Judges of Election.

SECT. 4. The Judges of Election in the several wards shall meet at the place appointed for them on election days, at the hour fixed for the closing of the polls, and shall forthwith proceed to open the ballot-boxes and count the votes cast for the various offices, and make return of the same to the City Clerk. They shall securely enclose and return to the City Clerk all the ballots found in said boxes, in such form as the City Council may by ordinance prescribe.

SECT. 5. The said judges in each ward shall elect one of their number to be chairman, and the said chairman shall constitute a revising board to meet at City Hall, and recount all disputed votes, and decide all questions raised relative to elections, in the same manner and to the same extent as the Board of Aldermen of said city are now required or empowered to act in disputed elections.

SECT. 6. All duties now devolved by law upon precinct officers or others, so far as they are incompatible with this act, are hereby revoked.

SECT. 7. The said Judges of Election shall receive such compensation as the City Council may by ordinance establish.

SECT. 8. In case less than a majority of said Board of Judges in any ward meet at the time and place assigned for this action, no count shall be had on that day; but the Mayor shall appoint others in the place of those not attending, and such board shall meet on the next week-day following their appointment.

IN COMMON COUNCIL, December 27, 1883.

Ordered to be printed, and assigned to the next meeting, at eight and one-half o'clock P.M.

W. P. GREGG,
Clerk of the Common Council.

CITY OF



BOSTON.

REPORT

ON THE

MEMORIAL OF THE ASSOCIATED AND OTHER CHARITIES

ON THE

PRACTICE OF DISTRIBUTING SOUP.

IN COMMON COUNCIL, December 27, 1883.

The Joint Standing Committee on Police, to whom was referred by the Common Council the memorial of the Associated Charities and other charitable societies in the city, asking that the practice of distributing soup, as carried on by the city heretofore, under the direction of the Police Department, be discontinued, having carefully considered the subject, and given a public hearing thereon, in compliance with instructions, respectfully submit their report as follows : —

The practice of dispensing free soup, as it is called, is not of recent origin, but has been carried on by the city for many years with occasional interruptions. It has met with considerable opposition at times from those who believe this method of dispensing charity to be wrong in principle. In 1873 the order to provide soup was made the subject of much animated discussion in both branches of the City Council, and, the legality of the measure being questioned, the opinion of the City Solicitor was sought upon this point. He stated that "the City Council has no authority to appro-

priate money for such a purpose ;" and in consequence of this opinion the practice was discontinued that season, the City Council refusing to pass the order. The issue being raised upon the legal aspect of the question, the friends of the measure carried it to the Legislature in 1874, and succeeded in procuring the passage of an act (Acts of 1874, c. 374) authorizing the City Council of Boston to appropriate money "for temporary aid to the poor ; the same to be expended in such manner as they may by vote determine." Having thus obtained authority for giving temporary aid to the poor, the custom of providing free soup has been continued by the City Council uninterruptedly during the successive winters up to the present time. The statute referred to limited the amount to be appropriated for this purpose in any one year to one fifteen hundredth of one per cent. of the city's valuation ; so that the appropriation has never exceeded \$5,000 a year, and has generally been less than \$3,000. The City Council is now asked to discontinue the practice, and the reasons advanced by the advocates of such a course are, when briefly summed up, that the moral effect upon the recipients of the bounty is bad ; it impairs their self-dependence and self-respect ; also, that the system as established invites unworthy applicants from outside to come to the city for aid.

These were the main objections that were raised against this long-established custom ; and it is for the City Council to determine whether or not they are sufficient to warrant their granting the prayer of the petitioners.

As regards the dispensing of soup, the course that has been pursued hitherto is very simple, and the recipients of the charity do not, in receiving it, become known as paupers, for they are not registered upon any official records. They are in almost every case, however, known to the police ; but they come to the soup-stations and receive their little allowance and depart to their homes without being subjected to examination or inquiry.

It may be that impostors and unworthy persons avail themselves of the city's hospitality, which is so freely extended ; but it is better that some persons of this class should be aided, although unworthy, rather than to allow a worthy person to suffer.

The committee feel in this matter that the good results that have been obtained in alleviating distress in many deserving cases more than compensate for the imposition which may have been practised upon the city, and perhaps will offset in a great measure whatever faults there may be in the system, or the evil effects that result from it in a moral point

of view. Even allowing, as some contend, that the principle is wrong, the error, if there be any, is on the side of humanity, and the practice having been carried on by our city for so many years, your committee on their part desire to go upon record as favoring its continuance. They therefore respectfully recommend that the petitioners have leave to withdraw.

For the Committee,

DAVID F. BARRY.

IN COMMON COUNCIL, December 27, 1883.

Ordered to be printed, and assigned to the next meeting,
at 8 o'clock P.M.

W. P. GREGG,

Clerk of the Common Council.

CITY OF



BOSTON.

REPORT

OF THE

JOINT SPECIAL COMMITTEE APPOINTED
TO INVESTIGATE THE INSTITUTIONS
AT DEER ISLAND.

IN COMMON COUNCIL, January 3, 1884.

The Joint Special Committee appointed to investigate and report upon the management of the Public Institutions at Deer Island beg leave to report as follows:—

The investigation made by your committee was confined to an inquiry into certain alleged cases of excessive punishment and abusive treatment, on the part of officers connected with the institution, and to the non-compliance with the statutes relating to freedom of religious worship.

With regard to excessive punishment and abusive acts the testimony was given only by ex-prisoners, who claimed to have been the sufferers. No rebutting testimony was taken; and in one case it would have been impossible to have obtained it, as the officer charged with the act has been discharged. One case of recent occurrence was brought to the attention of the committee; but, as the Directors were investigating it, the committee did not deem it expedient to pursue an inquiry until the determination of the Directors was known.

In regard to the other cases the committee feel that it would be unjust to deduce any conclusions from *ex-parte* statements. The committee recommend, however, that the Directors make such changes in the rules as will prevent the infliction of corporal punishment, without the knowledge and consent of the Superintendent.

The statutes relative to freedom of religious worship were not fully complied with until recently. This seems to have been in consequence of some misunderstanding on the part of both the Board of Directors and the officers of the institution. The matter is now thoroughly understood, and there appears to be no necessity for any action on the subject.

For the Committee,

HENRY PARKMAN.

CITY OF



BOSTON.

HIGHLAND STREET RAILWAY.

TWENTIETH LOCATION.

IN BOARD OF ALDERMEN, December 31, 1883.

The Committee on Railroads, to whom was recommitted the petition of the Highland Street Railway Co. for leave to lay tracks in South, High, Federal, and Milk streets, and Post-office square, respectfully recommend the passage of the following order, granting the location desired.

For the Committee,

CHAS. V. WHITTEN,

Chairman.

Ordered, That, in addition to the rights heretofore granted the Highland Street Railway Company to lay down tracks in the streets of the City of Boston, said company shall have the right to lay down a double track in South, High, Federal, and Milk streets, and Post-office square, with a turnout track and stand in said Post-office square, and also in Federal street near the passenger station of the New York & New England Railroad Company; said tracks and turnouts being shown by red lines on a plan made by Arthur Hodges, Civil Engineer, dated December 14, 1883, and deposited in the office of the Superintendent of Streets.

The right to lay down the tracks located by this order is upon condition that the whole work of laying the same, the form of rail to be used, and the kind and quality of material used in paving said tracks, shall be under the direction and to the satisfaction of the Committee on Paving

and the Superintendent of Streets, and shall be approved by them. Also upon condition that said Highland Street Railway Company shall accept this order of location, and shall agree, in writing, to comply with the conditions herein contained, and shall file said acceptance and agreement with the City Clerk within thirty days from the passage of this order; otherwise it shall be null and void.

Passed.

A true copy.

Attest:

FREDERICK E. GOODRICH,
City Clerk.

CITY OF



BOSTON.

MONTHLY STATEMENT

OF THE

TREASURY DEPARTMENT.

TREASURER'S OFFICE,

BOSTON, Jan. 3, 1884.

TO THE HONORABLE CITY COUNCIL :—

GENTLEMEN, — The undersigned herewith presents a statement of the receipts and payments of the Treasury Department of the City of Boston for the month of December, 1883, showing the balance of money remaining in the Treasury at the close of the month of December, 1883, and where deposited.

Respectfully submitted,

ALFRED T. TURNER, *City Treasurer.*

Monthly Statement of the Treasury Department.

Balance, November 30, 1883 . . . \$5,120,727 45

RECEIPTS IN DECEMBER, 1883.

From City Collector, on City Account . . .	\$1,607,429 58
From City Collector, on County Account . . .	144 22
	\$1,607,573 80
City 4% Loans, —	
Library Lot, Dartmouth street and St. James avenue . . .	80,000 00
Cochituate Water 4% Loan, —	
Additional Supply of Water . . .	50,000 00
Mystic Water 4% Loan, —	
Introduction of Meters, etc. . .	15,000 00
From Sinking-Fund Commissioners, —	
For payment of Debt . . .	409,244 50
Interest on Bank Deposits . . .	10,996 98
Pay-roll tailings from Paymasters, settlements with Cashier, parties unpaid . .	2,233 58
	<u>\$7,295,776 31</u>

PAYMENTS IN DECEMBER, 1883.

On Mayor's general draft . . .	\$472,275 16
“ “ special drafts . . .	711,658 67
	\$1,183,933 83
Bank Tax to State of Massachusetts . .	659,154 87
State Tax. . .	578,055 00
County of Suffolk, allowed by Auditor of the County of Suffolk . . .	30,751 21
Sinking-Fund Commissioners, Revenue, payable under authority of Ordinance on Finance . . .	4,911 46
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters . .	2,527 62
Liquor licenses paid State of Massachusetts, . .	806 75
Refunded taxes, expenses, costs, etc. . .	655 40
	<u>\$2,460,796 14</u>

RECAPITULATION.

Balance, November 30, 1883 . . .	\$5,120,727 45
Receipts during December, 1883 . . .	2,175,048 86
	\$7,295,776 31
Payments during December, 1883 . . .	2,460,796 14
Balance, December 31, 1883 . . .	<u>\$4,834,980 17</u>

STATEMENT

For the Financial Year 1883-84, from May 1, 1883, to Dec. 31, 1883, inclusive:—

Balance on hand May 1, 1883 . . .	\$2,564,013 55
-----------------------------------	----------------

RECEIPTS.

From City Collector, on City Account . . .	\$11,786,314 88	
From City Collector, on County Account . . .	46,907 19	
		\$11,833,222 07
City 4% Loans,—		
Charles-River Embankment, \$200,000 00		
City Point Park . . .	100,000 00	
Improved Sewerage . . .	809,000 00	
Library Lot, Dartmouth St. and St. James Ave. . .	180,000 00	
Muddy-River Improvement, . . .	100,000 00	
Warren Bridge . . .	300,000 00	
West Roxbury Park . . .	300,000 00	
Widening Kneeland Street, . . .	1,000 00	
		1,990,000 00
Cochituate Water 4% Loans,—		
Additional Supply Water, \$376,000 00		
Introduction of Meters and Inspection . . .	50,000 00	
New Main, Cochituate Water Works . . .	70,000 00	
		496,000 00
Mystic Water 4 % Loan,—		
Introduction Meters, etc. . . .	15,000 00	
Temporary Loan, 1883-84 . . .	1,930,000 00	
From Sinking-Fund Commissioners,—		
For payment of Debt . . .	\$1,079,244 50	
Refunded betterments and costs . . .	178 68	
		1,079,423 18
<i>Amount carried forward . . .</i>		<u>\$19,907,658 80</u>

<i>Amount brought forward</i>	.	.	.	\$19,907,658	80
Premium on City Loans	.	.	.	61,740	00
Interest on Bank Deposits	.	.	.	44,749	96
Pay-roll tailings from Paymasters, settle- ments with Cashier, parties unpaid	.	.	.	21,425	07
Tax-title, 249 Webster street	.	.	.	115	30
					\$20,035,689 13

PAYMENTS.

On Mayor's general draft	\$6,436,917	37	
“ “ special drafts	6,826,408	27	
			\$13,263,325 64
Bank Tax to State of Massachusetts			659,154 87
State Tax			578,055 00
To Sinking-Fund Commissioners, revenue payable under authority of Ordinance on Finance			298,734 24
County of Suffolk, allowed by Auditor of the County of Suffolk			231,774 16
Liquor licenses, paid State of Massachusetts, ...			74,127 25
City 5% Loan			57,000 00
Pay-roll tailings, payments by Cashier to parties not paid by Paymasters			20,499 91
Refunded taxes, expenses, costs, etc.			7,737 92
Police Charitable Fund			7,000 00
Cedar Grove Cemetery Trust Fund			1,000 00
Mount Hope Cemetery Trust Fund			1,000 00
Old claims, Mayor's drafts, of 1882-83, etc., ...			932 16
Refunded betterments and costs			178 68
Tax-title, 249 Webster street			115 30
Stoughton School Fund Income			69 00
Refunded Bank Tax			4 83
			\$15,200,708 96

RECAPITULATION.

Balance, May 1, 1883	.	.	.	\$2,564,013	55
Receipts from May 1 to December 31, 1883, inclusive	.	.	.	17,471,675	58
					\$20,035,689 13
Payments to December 31, 1883, inclusive	.	.	.	15,200,708	96
Balance, December 31, 1883	.	.	.	\$4,834,980	17

Balance, December 31, 1883, as per preceding and monthly statements, as follows : —

Money deposited in the following banks : —

Blackstone National Bank	\$100,200 00
Bunker Hill National Bank	100,200 00
Continental National Bank	100,197 26
Everett National Bank	50,100 00
Faneuil Hall National Bank	100,191 67
Fourth National Bank	75,104 80
Lincoln National Bank	75,112 50
Market National Bank	100,191 67
Massachusetts National Bank	100,191 67
Maverick National Bank	100,189 02
Merchandise National Bank	50,098 64
Metropolitan National Bank	75,131 25
Monument National Bank	50,094 52
Mt. Vernon National Bank	50,095 83
North National Bank	100,197 26
People's National Bank	50,000 00
Shawmut National Bank	100,191 66
National Bank of the Commonwealth . .	100,197 26
“ Eagle Bank	100,150 00
“ Hide & Leather Bank	100,189 04
“ Bank of North America	100,197 26
“ Bank of the Republic	100,189 04
“ Revere Bank	100,191 66
“ Rockland Bank	75,137 50
“ Security Bank	50,100 00
	\$2,103,839 51
Merchants' National Bank	1,500,920 55
National Bank of Redemption	351,306 45
Howard National Bank	249,584 36
Globe National Bank	357,794 75
National Bank of Commerce, pay-roll tail- ings account	5,040 66
	\$4,568,486 28
Cash and cash vouchers in office	266,493 89
	<u>\$4,834,980 17</u>

ALFRED T. TURNER,
City Treasurer.

CITY OF



BOSTON.

AUDITOR'S MONTHLY EXHIBIT.

GENERAL AND SPECIAL APPROPRIATIONS

FOR 1883-84.

OFFICE OF THE CITY AUDITOR, }
CITY HALL, January 3, 1884. }

TO THE HONORABLE CITY COUNCIL:—

GENTLEMEN, — The undersigned, in compliance with Chap. 14, Section 3, Revised Ordinances, herewith presents an exhibit of the General and Special Appropriations for the present financial year of 1883-84, as shown in the books in his office, January 1, 1884, including the January draft, — being nine months' payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1882-83, the amount drawn January 1, the total expenditures, and the balance of each appropriation unexpended at that date.

Respectfully submitted,

JAMES H. DODGE,
City Auditor.

APPROPRIATIONS.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Jan. Draft, including Treasurer's payments in December.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including January Draft.
Advertising ¹	.	.	\$1,800 00	\$1,800 00	\$66 59	\$1,562 73	\$237 27	
Architect's Department	.	.	13,000 00	13,000 00	1,024 69	10,758 95	2,241 05	
Armories	.	.	24,000 00	24,000 00	5,173 41	19,799 22	4,200 78	
Assessors' Department	.	.	105,000 00	105,000 00	8,862 45	93,322 39	11,677 61	
Auditor's Department	.	.	17,500 00	17,500 00	1,348 98	12,315 03	5,184 97	
Board of Health, etc., viz.:	.	.						
Board of Health	.	.	62,000 00	62,000 00	4,889 77	45,423 23	16,576 77	
Evergreen Cemetery	.	\$582 30	1,500 00	2,121 82	157 75	1,883 18	238 64	
Public Baths	.	.	15,000 00	15,000 00	686 63	14,214 03	785 97	
Quarantine Department	.	.	16,400 00	16,400 00	559 83	16,348 42	51 58	
Store-house, Gallop's Island ²	.	.	10,000 00	10,000 00	.	7,933 51	2,066 49	
Boston Harbor	.	.	4,500 00	4,500 00	183 50	1,440 26	3,059 74	
Bridges:—	.	.						
New Bridge	.	.	67,000 00	67,000 00	5,796 50	55,845 22	11,154 78	
New Bridge to Cambridge	1,000 00	.	.	1,000 00	.	.	1,000 00	\$192,756 45
Warren Bridge	99,710 55	300,000 00	.	399,710 55	68,280 31	192,467 00	207,243 55	6,363,828 12
Burnt District	82,348 53	.	.	82,348 53	.	.	82,348 53	
Cedar Grove Cemetery	504 52	9,259 82	5,000 00	14,764 34	1,264 19	11,820 47	2,943 87	
Chestnut Hill Driveway	.	.	3,000 00	3,000 00	303 70	2,462 99	537 01	
City Debt	.	.	768,278 00	768,278 00	.	768,278 00	.	
City Loans, Redemption of, ...	.	.						
Received from Commission- ers	.	1,079,244 50	.	1,079,244 50	.	1,079,244 50	.	
Revenue \$303,000 00	.	.	.	.	.	.	.	
Sinking Funds, \$771,244 50	.	.	.	.	.	.	.	
Redemption of City Debt	.	.	.	.	.	.	.	
Proper	.	.	.	.	408,234 16	.	.	
Redemption of Mystic Water Debt	.	.	.	.	.	.	.	
Cost of Redemption of ma- tured bonds	.	.	154,500 00	154,500 00	1,010 34	111,804 78	42,695 22	
City Hospital	.	.	.	.	14,383 29	.	.	
Carried forward	\$183,603 12	\$1,389,086 62	\$1,268,478 00	\$2,841,167 74	\$522,226 09	\$2,446,923 91	\$394,243 83	\$6,556,584 57

¹ Transferred from Reserved Fund, \$600.

² Transferred from Reserved Fund, \$10,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Jan. Draft, including Treasurer's payments in December.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including January Draft.
<i>Brought forward</i>	\$183,603 12	\$1,389,086 62	\$1,268,478 00	\$2,841,167 74	\$522,226 09	\$2,446,923 91	\$394,243 83	\$6,556,584 57
City Registrar's Department			10,900 00	10,900 00	873 53	6,308 13	4,591 87	
Collector's Department			52,900 00	52,900 00	4,380 11	39,582 86	13,317 14	
Common and Public Grounds:								
Common, etc.			63,550 00	63,550 00	2,672 23	59,819 89	3,730 61	
Current expenses								
Concrete walks								
Plank walks								
Flagstaffs, Common, Public Gar- den, and Washington Park								
Play Grounds								
Curb-stones, Copley Square ¹			5,000 00	5,000 00		43 10	4,956 90	
Improvement of Copley Square			5,000 00	5,000 00		5,000 00		
Public Garden Pond	9,541 35			9,541 35	2,646 66	8,944 64	596 71	
Contingent Funds, viz.:								
Joint Committees ²			21,000 00	21,000 00		14,999 07	6,000 93	
Mayor			1,500 00	1,500 00	36 50	469 60	1,030 40	
Board of Aldermen			6,600 00	6,600 00		4,600 51	1,999 49	
Common Council			5,000 00	5,000 00	141 00	3,305 67	1,694 33	
County of Suffolk			360,000 00	360,000 00	36,601 09	268,632 94	91,367 06	
Damages by dogs					16 50	407 00	(\$407 provided for.)	
Deeds, Real Estate Advertising, etc.	5,485 33	6,923 32		12,408 65	339 54	7,493 88	4,914 77	
East Boston Ferries:								
East Boston Ferries			210,540 00	210,540 00	23,363 41	190,500 59	20,039 41	
Head-house, North Ferry, Boston side	4,548 88			4,548 88		4,528 19	20 69	
New Ferry Boat			50,000 00	50,000 00	3,113 00	29,303 11	20,696 89	23,479 31
Repairing Eastern avenue Wharf ³			1,500 00	1,500 00			1,500 00	
Engineer's Department			32,000 00	32,000 00	2,676 20	21,911 28	10,088 72	
Fire Department:								
Fire Department			601,043 00	601,043 00	41,344 03	481,404 06	119,638 94	
Fire-Alarm Telegraph			30,052 00	30,052 00	2,384 84	20,460 43	9,591 57	
Tower Clock, Lyceum Hall Building, East Boston ⁴			1,000 00	1,000 00			1,000 00	
Health Department			380,000 00	380,000 00	33,204 52	277,150 53	102,849 47	
<i>Carried forward</i>	\$203,178 68	\$1,396,009 94	\$3,106,063 00	\$4,705,251 62	\$676,019 25	\$3,891,788 89	\$813,869 73	\$6,580,063 88

¹ Transferred from Reserved Fund, \$5,000.² Transferred from Reserved Fund, \$6,000.³ Transferred from Reserved Fund, \$1,500.⁴ Transferred from Reserved Fund, \$1,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Jan. Draft, including Treasurer's payments in December.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including January Draft.
<i>Brought forward</i>								
Improved Sewerage ¹	\$203,178 68	\$1,396,009 94	\$3,106,063 00	\$4,705,251 62	\$676,019 25	\$3,891,788 89	\$813,869 73	\$6,580,063 88
Incidental Expenses	191,013 41	809,000 00		1,000,013 41	121,456 65	988,536 30	11,477 11	4,544,522 89
Inspection of Buildings		397 41	60,000 00	60,397 41	2,759 11	48,357 19	12,040 22	
Interest			33,500 00	33,500 00	3,483 23	27,485 04	6,014 96	
Lamp Department			1,562,968 00	1,562,968 00	101,731 50	873,710 82	689,257 18	
Law Department			500,000 00	500,000 00	47,287 99	340,310 30	159,689 70	
Liquor License Expenses :			23,000 00	23,000 00	1,915 38	16,940 26	6,059 74	
Police Commissioners					2,692 31			
City Clerk's Department								
Collector's Department		301,449 00		301,449 00		95,020 92	206,428 08	
Treasurer's Department								
Paid State, proportion of receipts, 74,127 25 }					806 75			
Markets			11,220 00	11,220 00	845 73	8,434 96	2,785 04	
Mount Hope Cemetery	4,559 54	12,799 38	14,743 00	32,101 92	2,165 83	31,852 19	249 73	
Northampton-street District	19,621 75			19,621 75			19,621 75	558,378 25
Old Claims			2,000 00	2,000 00		932 16	1,067 84	
Overseers of the Poor			113,750 00	113,750 00	7,340 46	53,204 30	60,545 70	
Park Department :								
Arnold Arboretum :	1,514 74	1,772 28	5,000 00	8,287,02	1,358 50	3,835 98	4,451 04	
Land	30,598 15			30,598 15			30,598 15	29,401 85
Driveways, etc.			15,000 00	15,000 00	2,954 62		1,605 71	
Charles River Embankment :								
Land	38,000 00	200,000 00		238,000 00		62,487 00	175,513 00	124,487 00
Borings, etc. ²			1,000 00	1,000 00	23 00	1,000 00		
City Point Park :								
Land	39,364 70	100,000 00		139,364 70		25,023 29	114,341 41	105,658 59
Filling, etc. ³			3,000 00	3,000 00		2,155 28	844 72	
Covered Channel, Muddy River	24,287 88		50,000 00	74,287 88	5,309 08	37,260 64	37,027 24	92,972 76
<i>Carried forward</i>	\$552,138 85	\$2,821,428 01	\$5,501,244 00	\$8,874,810 86	\$978,149 39	\$6,521,729 81	\$2,353,488 05	\$12,035,485 22

¹ Total Appropriations, \$5,253,000; transferred August, 1876, by authority of an order of July 17, from Reserved Fund, \$40,000, and loans authorized, \$5,213,000; loans negotiated, \$4,516,000.

² Transferred from Reserved Fund, \$3,000.

³ Transferred from Reserved Fund, \$1,000.

AUDITOR'S MONTHLY EXHIBIT.

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APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Jan. Draft, including Treasurer's payments in December.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on incom- pleted public buildings and works, May 1, 1883, including January Draft.
<i>Brought forward</i>	\$552,138 85	\$2,821,428 01	\$5,501,244 00	\$8,874,810 86	\$978,149 39	\$6,521,729 81	\$2,353,488 05	\$12,035,485 22
Covered Channel, Stony Brook	3,192 50			3,192 50		2,014 66	1,177 84	125,199 51
East Boston Park, care, etc.			5,000 00	5,000 00	181 26	277 58	4,622 42	
Muddy River Improvement	4,864 67	100,000 00		104,864 67	7,970 81	24,036 38	80,828 29	44,171 71
Park Nursery, Austin Farm	367 22		1,000 00	1,367 22		93 41	1,273 81	
Public Park, Back Bay:								
Land	21,925 21			21,925 21			21,925 21	444,074 79
Filling, etc.	121,765 48		100,000 00	221,765 48	28,345 11	166,112 01	55,653 47	832,046 53
West Roxbury Park								
Land	64,066 97	300,000 00		364,066 97		110,316 97	253,750 00	346,250 00
Care, etc.			5,000 00	5,000 00		4,999 95	05	
Paving Department			800,000 00	800,000 00	40,026 27	709,738 01	90,261 99	
Phillips Street Fund, Income	4,358 16			4,358 16			4,358 16	
Police Department			970,324 00	970,324 00	74,157 06	688,791 85	281,532 15	
Printing and Stationery (general)	7,250 00		37,500 00	44,750 00	3,305 45	26,684 72	18,065 28	
Public Buildings:								
Public Buildings	23,340 99	12,927 08	136,650 00	172,918 07	17,742 70	131,169 08	41,748 99	
Engine-house, Bunker Hill Street ¹			23,000 00	23,000 00	765 50	9,772 90	13,227 10	
Health Department Stables	2,613 97			2,613 97		2,575 50	38 47	
Library Lot, Dartmouth st. and St. James av.		180,000 00		180,000 00	16,125 00	73,300 00	106,700 00	
Repairing Engine-house, No. 7 ²			5,000 00	5,000 00			5,000 00	
Public Institutions, viz.:								
House of Industry			176,200 00	176,200 00	15,051 75	137,350 13	38,849 87	
House of Correction			90,400 00	90,400 00	5,533 77	78,941 99	11,458 01	
Lunatic Hospital			60,000 00	60,000 00	4,308 82	45,041 60	14,958 40	
Marcella-street Home			45,000 00	45,000 00	4,705 81	30,648 56	14,351 44	
Alms-house, Austin Farm			27,000 00	27,000 00	2,573 90	18,500 88	8,499 12	
Alms-house, Charlestown District			10,950 00	10,950 00	1,065 42	9,566 68	1,383 32	
Pauper Expenses			159,000 00	159,000 00	1,511 03	102,197 86	56,802 14	
Steamboat "J. Putnam Bradlee"			14,000 00	14,000 00	1,247 55	13,979 05	20 95	
New boilers, etc., steamboat "J. Putnam Bradlee"			7,600 00	7,600 00		7,599 49	51	
Office Expenses			8,500 00	8,500 00	685 00	6,211 58	2,188 42	
Stone-cutting, Deer and Rainsford Islands			16,000 00	16,000 00	205 00	6,114 50	9,885 50	
Marcella-street Home, fences and grounds	1,004 92			1,004 92	58 10	1,004 92		
Furnishing Master's house, House of Cor- rection			2,000 00	2,000 00		1,999 60	40	
<i>Carried forward</i>	\$806,888 94	\$3,414,355 09	\$8,201,368 00	\$12,422,612 03	\$1,203,714 70	\$8,930,969 67	\$3,492,049 36	\$13,827,227 76

¹ Transferred to Grammar School-house, Kenilworth street, \$2,000.² Transferred from Reserved Fund, \$5,000.

APPROPRIATIONS, CONTINUED

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Jan. Draft, including Treasurer's payments in December.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including January Draft.
<i>Brought forward</i>	\$806,888 94	\$3,414,355 09	\$8,201,368 00	\$12,422,612 03	\$1,203,714 70	\$8,930,969 67	\$3,492,049 36	\$13,827,227 76
Public Lands			6,000 00	6,000 00	2 48	3,057 39	2,942 61	
Public Library	2,093 95		120,000 00	122,093 95	9,826 81	88,324 59	33,769 36	
Record Commissioners			4,500 00	4,500 00	341 85	3,013 46	1,486 54	
Record of Street Names	1,500 00			1,500 00	100 00	400 00	1,100 00	
Registration of Voters and Election Expenses:								
Registration of Voters			25,000 00	25,000 00	2,121 79	21,170 00	3,830 00	
Election Expenses			15,000 00	15,000 00	8,517 39	14,748 13	251 87	
Reserved Fund ¹			102,915 00	102,915 00			102,915 00	
Salaries			37,500 00	37,500 00	3,133 32	28,140 05	9,359 95	
Schools and School-houses, viz.:								
School Instructors			1,143,471 00	1,143,471 00	100,293 86	851,850 64	291,620 36	
Salaries Officers, School Committee			58,940 00	58,940 00	4,901 68	44,115 00	14,825 00	
School Expenses, School Committee			255,650 00	255,650 00	12,512 75	195,078 52	60,571 48	
Gibson School Fund, Income	2,084 95	167 00		2,251 95	29 35	690 14	1,561 81	
School-houses, Public Buildings			169,000 00	169,000 00	8,899 71	164,158 05	4,841 95	
Addition to Auburn-street School-house			5,000 00	5,000 00	2,104 00	2,422 94	2,577 06	
Addition to Chapman School-house ²	13,591 10		1,000 00	14,591 10	1,000 00	13,410 96	1,180 14	
Chapman School-house, furnishing			2,000 00	2,000 00	185 23	1,953 60	46 40	
Addition to School-house lot, Sumner-street, Dorchester ³			7,500 00	7,500 00		7,279 50	220 50	
Addition to East Boston High School-house	30,000 00		5,000 00	35,000 00	6,630 00	13,269 59	21,730 41	
East Boston High School-house, furnishing: Enlargement of Lexington-street School- house lot			2,000 00	2,000 00			2,000 00	
English High and Latin School Buildings ⁴			2,300 00	2,300 00		2,300 00		
George Putnam School, completion of	1,547 43			1,547 43			1,547 43	
Grammar School-house, Hammond-park st.: Site			15,000 00	15,000 00	4,792 51	10,447 18	4,552 82	467,830 82
Building								
<i>Carried forward</i>	\$857,706 37	\$3,414,522 09	\$10,257,144 00	\$14,529,372 46	\$1,369,107 43	\$10,423,905 69	\$4,105,873 77	\$14,295,058 58

¹ Transferred to Addition to East Boston High School-house, \$5,000.
Addition to School-house lot, Sumner street, Dorchester, \$7,500.

Advertising, \$600.
Charles River Embankment, Borings, etc., \$1,000.
City Point Park, Filling, etc., \$3,000.
Contingent Fund Joint Committees, \$6,000.
Curbstones, Copley Square, \$5,000.
Foot-bridge, Franklin street, Brighton, \$3,500.

² Transferred from Primary School-house, O street, \$1,000.

³ Transferred from Reserved Fund, \$7,500.

⁴ Total appropriation, \$469,378.25; loan authorized and negotiated, \$350,000; transfer, \$16,378.25; appropriations, \$103,000.

¹ Grammar School-house site, Minot street, Dorchester, \$8,200.
Primary School-house, Main street, Charlestown, \$1,085.
Primary School-house site, Savin-Hill avenue, \$6,200.
Repairing Eastern-Avenue Wharf, \$1,500.

Repairing Engine-house No. 7, \$5,000.
Sewer Department, \$25,000.
Stony Brook Improvement, \$7,500.
Store-house, Gallop's Island, \$10,000.
Tower Clock, Lyceum Hall Building, East Boston, \$1,000.

APPROPRIATIONS, CONTINUED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Jan. Draft, including Treasurer's payments in December.	Expenditures for 1883-84.	Balances Unexpended.	Total expendi- tures on uncom- pleted public buildings and works, May 1, 1883, including January Draft.
<i>Brought forward</i>	\$857,506 37	\$3,414,522 09	\$10,257,144 00	\$14,529,372 46	\$1,369,107 43	\$10,423,905 69	\$4,105,873 77	\$14,295,058 58
Grammar School-house, Kenilworth street	34,546 47		9,500 00	44,046 47	443 45	42,413 16	1,633 31	105,679 19
Grammar School-house, Kenilworth street, furnishing			6,200 00	6,200 00		6,086 59	113 41	
Grammar School-house site, Minot street, Dorchester ¹			8,200 00	8,200 00			8,200 00	
Primary School-house, Harbor View street	12,000 00			12,000 00	107 75	3,567 61	8,432 39	
Primary School-house, Howard-avenue ²	31,317 07		1,000 00	32,317 07	8,418 68	29,743 37	2,573 70	51,475 30
Primary School-house, Howard avenue, furnishing			3,500 00	3,500 00	77 13	2,036 33	1,463 67	
Primary School-house, Main street, Charles- town:—								
Site ³			42,085 00	42,085 00			42,085 00	
Building			8,000 00	48,000 00	5,154 00	19,666 17	28,333 83	25,666 17
Primary School-house, O street ⁴	40,000 00		30,000 00	30,000 00			30,000 00	
Primary School-house, Parker street			6,200 00	6,200 00			6,200 00	
Primary School-house site, Savin Hill avenue, ⁵ Primary School-house, vicinity of Blossom street:—			100,000 00	100,000 00	7,000 00	11,375 00	88,625 00	
Site				7,960 70		7,901 32	59 38	8,940 62
Building	7,960 70							
School-house, Breed's Island:—								
Site			9,140 00	9,140 00	846 52	6,894 87	2,245 13	
Building			275,000 00	275,000 00	9,309 12	239,114 42	35,885 58	
Sealer of Weights and Measures			2,000 00	2,000 00	234 00	1,210 89	789 11	
Sinking-Fund Commissioners				161,487 45	7,748 66	68,049 95	93,437 50	
Soldiers' Relief	77,948 77	83,538 68		47,933 41	1,208 33	47,861 51	71 90	302,330 54
Stony Brook Improvement ⁷	433 41		47,500 00	659 71		659 71		2,428,248 96
Suffolk Street District	659 71			30,000 00		21,370 31		
Surveyor's Department			30,000 00	97,000 00	2,395 34	97,000 00	8,629 69	
Temporary Loan			97,000 00	29,500 00		21,612 53		
Treasurer's Department			29,500 00		2,446 94		7,887 47	
Water Works:—								
Cochituate Water Works		337,909 82		337,909 82		612,365 68	(\$274,455.86 pro- vided for.)	
Running expenses				40,678 15				
Interest				1,720 00				
<i>Carried forward</i>	\$1,062,572 50	\$3,835,970 59	\$10,961,969 00	\$15,860,512 09	\$1,456,895 50	\$11,662,835 11	\$4,472,539 84	\$17,217,399 36

¹ Transferred from Reserved Fund, \$8,200.
² Transferred from Primary School-house, O street, \$1,000.
³ Transferred from Reserved Fund, \$1,085.
⁴ Transferred to Primary School-house, Howard avenue, \$1,000; addition to Chapman School-house, \$1,000.
⁵ Transferred from Reserved Fund, \$6,200.
⁶ Transferred from Reserved Fund, \$25,000.
⁷ Transferred from Reserved Fund, \$7,500.

APPROPRIATIONS, CONCLUDED.

OBJECT OF APPROPRIATIONS.	Balances from 1882-83.	Revenue and Loans.	Appropriations, 1883-84, and Transfers.	Total Credits.	Jan. Draft, including Treasurer's payments in December.	Expenditures for 1883-84.	Balances Unexpended.	Total expenditures on uncompleted public buildings and works May 1, 1883, including January Draft.
<i>Brought forward</i>	\$1,062,572 50	\$3,835,970 59	\$10,961,969 00	\$15,860,512 09	\$1,456,895 50	\$11,662,835 11	\$4,472,539 84	\$17,217,399 36
Additional Supply of Water ¹	219,141 48	376,000 00		595,141 48	50,288 59	373,201 77	221,939 71	5,890,947 09
New Main, Cochituate Water Works	9,486 78	70,000 00		79,486 78	2,809 76	71,165 76	8,321 02	341,678 98
Introduction of Meters and Inspection		65,000 00		65,000 00	2,464 85	19,350 23	45,649 77	
Mystic Water Works		111,074 04		111,074 04		142,223 70	(\$31,149 66 provided for.)	
Running expenses					11,884 93			
Interest								
Proportions paid under contracts								
tracts								
Mystic Sewer	7,256 02			7,256 02	78 15	6,063 88	1,192 14	128,807 86
West Boston and other Bridges			11,500 00	11,500 00	563 93	7,155 09	4,344 91	
Widening and Extending Streets:—								
Widening Streets			100,000 00	100,000 00	16,097 52	55,956 25	44,043 75	
Broadway Extension	41,284 56			41,284 56		41,069 82	214 74	1,319,785 26
Columbus Avenue Extension	3,012 70			3,012 70			3,012 70	61,987 30
Commonwealth Avenue Extension	25,727 76			25,727 76	262 62		25,465 89	199,546 11
Commonwealth Ave. Extension, Brighton ² .						273 87		
D Street Extension	8,800 73		10,000 00	18,800 73	2,173 47	2,173 47	16,627 26	48,372 74
Eastern Avenue and Bridge	13,569 79			13,569 79			13,569 79	186,430 21
Foot-bridge, Franklin Street, Brighton ³			3,500 00	3,500 00	441 04	656 62	2,843 38	
Harrison Avenue Extension	3,604 17			3,604 17			3,604 17	126,515 83
Huntington Avenue Extension	49,099 42		40,000 00	89,099 42	10,282 30	51,634 36	37,465 06	
Camden st. to Parker st. {								54,354 98
Parker st. to Tremont st. {								103,179 96
Massachusetts Avenue ⁴			55,000 00	55,000 00			55,000 00	
Phillips Street Extension			32,300 00	32,300 00	12,704 00	27,979 00	4,321 00	1,645,697 00
Washington Street Extension	24,303 00			24,303 00			24,303 00	487,163 17
Widening Commercial Street	12,471 83			12,471 83		175 00	12,296 83	120,484 34
Widening Kneeland Street ⁵	6,515 66	1,000 00		7,515 66		7,000 00	515 66	243,159 62
Widening Portland Street	85,352 31			85,352 31		28,511 93	56,840 38	119,825 08
Widening South Street	20,174 92			20,174 92			20,174 92	
Widening South Street, East Street to Kneeland Street	21,757 69			21,757 69		55 00	21,702 69	163,297 31
	\$1,614,131 32	\$4,459,044 63	\$11,214,269 00	\$17,287,444 95	\$1,566,946 66	\$12,497,480 86	\$5,095,976 61	\$28,459,172 20
						Less prov. for,	306,012 52	
							\$4,789,964 09	

¹ Total appropriations, \$6,357,886.80; loans negotiated, premium on said loans, and transfer from Reserved Fund, \$6,112,886.80.
² Transferred to Massachusetts Avenue, \$55,000.
³ Transferred from Reserved Fund, \$3,500.
⁴ Transferred from Commonwealth Avenue Extension, Brighton, \$55,000.
⁵ Loan authorized, \$180,000, loan negotiated, \$121,000.

CITY OF



BOSTON.

SECOND SEMI-ANNUAL REPORT

OF THE

Inspectors of Prisons and Houses of Detention

IN

SUFFOLK COUNTY.

December, 1883.

IN BOARD OF ALDERMEN, January 5, 1884.

The Special Committee of the Board of Aldermen appointed to visit the jail and other houses of detention within the County of Suffolk, and to make the examinations and inspection required by law, respectfully submit their second semi-annual report.

LUNATIC HOSPITAL.

This institution was visited December 29, at which time the number of inmates was 202; of whom 101 were males and 101 were females.

The comfort and welfare of the inmates are as well provided for as the conveniences of the institution will permit. The committee were strongly impressed with the necessity of providing suitable apartments for the violent or excitable patients apart from the others, and would recommend that two wings be built to accommodate about 25 of each sex. The expense would not be large, and while the additional room would furnish the necessary accommodations for a certain class of the patients, it would at the same time relieve the present buildings, which are filled to their utmost capacity. At present no proper place is provided as a

mortuary, where the bodies of deceased patients can be seen by their friends, or where anatomical examinations that may be necessary can be made.

The place used for these purposes is an old wooden shed, and the committee believe that a proper building can be constructed for these uses and for a carriage-house, which is also a necessity, for a few hundred dollars, as much of the material for its construction is already on the premises.

HOUSE OF CORRECTION.

At the time of the committee's visit to this institution it contained a total of 513 inmates, — 455 males and 58 females.

The committee find that the cells for solitary confinement of female prisoners are in the building used as a hospital for female prisoners.

Their construction and location are such that when a turbulent and noisy prisoner is placed in one of them she becomes a source of great annoyance to every patient, and the committee recommend that these cells be removed to some more secluded locality.

The committee also recommend that the central portion of the prison, formerly occupied as a residence by the Master, be thrown open to both wings. By so doing a fine guard-room can be made, which will control each wing, and at the same time the ventilation of the prison will be greatly improved.

MARCELLA-STREET HOME.

At the time of the committee's visit to this institution (December 30) it contained 353 inmates. The committee find that the accommodations are entirely inadequate to accommodate in a proper manner the large number of children who are confined here; 129 girls are crowded into the space intended to accommodate only 100.

The committee urgently renew their recommendations of last July, that an extension of the buildings be made, to provide the necessary accommodations for the large number of inmates, and also better conveniences for the laundry.

JAIL.

The jail was inspected January 2, at which time it contained 162 inmates, — 147 males and 15 females. Everything was found to be in excellent condition, and the comfort and welfare of all prisoners seem to be carefully looked after in every respect.

HOUSES OF INDUSTRY AND REFORMATION, AND TRUANT SCHOOL.

These institutions were visited January 2, on which date the number of inmates was —

In House of Industry	.	.	.	.	.	.	845
House of Reformation	.	.	.	.	.	.	85
Truant School	.	.	.	.	.	.	152
Total	.	.	.	.	.	.	1,082

The hospital accommodations in the women's department of the House of Industry were found to be very crowded, and unsuitable for such purposes.

In the men's department it was found that about 200 of the inmates, by reason of the limited number of cells, were obliged to sleep on mattresses spread on the floors of the corridors in the prison wing.

The committee earnestly urge that better hospital room be provided, and at the same time request that the buildings be enlarged, for the proper confinement of those who are now obliged to sleep in the corridors, and also to provide larger quarters where the inmates can be kept during the day when obliged, from the inclemency of the weather, to be kept within doors.

In all the institutions visited by the committee the buildings were kept in the best condition, and the inmates were kept under proper discipline. Their food was plentiful and wholesome, and no complaints were heard from any concerning their care or treatment.

Respectfully submitted,

FRANCIS W. PRAY,
CHARLES V. WHITTEN,
PAUL H. KENDRICKEN,

Committee.

APPENDIX.

HOUSE OF CORRECTION.

BOSTON, MASS., December 31, 1883.

To the Inspectors of Prisons and Houses of Detention in the County of Suffolk: —

GENTLEMEN, — The committee visited the House of Correction, December 29, 1883.

The number of prisoners remaining June 29, 1883, was, — males, 413 ; females, 75 ; total, 488.

Committed from June 29 to December 29, — males, 437 ; females, 59 ; total, 496.

Discharged from June 29 to December 29, 1883, — males, 395 ; females, 76 ; total, 471.

Remaining December 29, 1883, — males, 455 ; females, 58 ; total, 513.

MISCELLANEOUS.

Discharged on expiration of sentence	397
Discharged by order Municipal Court	35
Paid fine and costs	16
Released on probation	7
Pardoned by Governor	4
Transferred to Lunatic Hospital at Taunton	7
Furnished surety	3
Died	2
	471

The health of the inmates during the past six months has been very good, only two deaths having occurred. Diseases of a dangerous nature have not visited the institution.

The usual standard of discipline is still required of the inmates ; the same being kept up without resorting to undue severity ; solitary and deprivation of beds being the only punishments.

All inmates who are able to work, and are not required about the general work of the institution, are constantly employed in the manufacture of clothing.

The average number of prisoners is somewhat larger than when last reported.

Very respectfully,

M. V. B. BERRY,
Master, House of Correction.

BOSTON LUNATIC HOSPITAL.

BOSTON, Jan. 1, 1884.

Return of the Boston Lunatic Hospital to the Inspectors of Prisons and Houses of Detention for the term ending December 29, 1883.

Number of patients remaining June 29, the date of last inspection : —

Men	93
Women	99
	—192

Number admitted since —

Men	42
Women	32
	— 74

Whole number treated —

Men	135
Women	131
	—266

Number discharged —

Men	34
Women	30
	— 64

Number remaining December 29, 1883 : —

Men	101
Women	101
	—202

Of those discharged there were —

Recovered	19
Improved	8
Unimproved	2
Transferred	21
Died	14
	— 64

Causes of death : —

General Paralysis, 4 ; Exhaustion from Senile Dementia, 3 ; Diarrhœa, 3 ; Cerebral Hemorrhage, Exhaustion of Melancholia, Anæmia, and Syphilis, each 1 ; total 14.

Very respectfully,

THEO. W. FISHER, M.D.,
Superintendent.

Pauper boys	127
Pauper girls	65
Neglected boys	97
Neglected girls	64
Total	353

Respectfully submitted,

W. PRESTON WOOD,
Superintendent.

HOUSE OF INDUSTRY.

To the Inspector of Prisons for Suffolk County:—

GENTLEMEN,—Following is a report of commitments to and discharges from the House of Industry, House of Reformation, and Truant School, from July 5, 1883, to January 1, 1884, inclusive:—

Commitments for—

Drunkenness	4,899
Larceny	223
Assault and battery	217
Common drunkard	97
Vagrant	91
Idle and disorderly	27
Breaking glass	26
Common night-walker	25
Disturbing the peace	22
Profanity	18
Unlawful appropriation of a horse	12
Fornication	8
Remaining on sidewalk	4
Threat	4
Neglecting to support child	4
Trespass	4
Embezzlement	3
Evading car-fare	3
Disturbing an assembly	3
Receiving stolen goods	3
Stealing a ride	3
Assault	3
Malicious injury to property	3
Stubborn child	3
Throwing missiles in the street	2
Walking on railroad track	2
Discharging fire-arms in the street	2
Malicious injury to real estate	1

Keeping open shop on Lord's day	1
Obtaining money by false pretences	1
Making bonfire in the street	1
Common railer and brawler	1
Indecent assault	1
Selling liquors on the Lord's day without a license	1
Breaking and entering	1
Gaming on the Lord's day	1
Attempt at larceny	1
Playing ball on the Lord's day	1
Tramp	1
Indecent exposure	1
	5,724

Causes for Discharge.

Expired sentence	4,959
Fine paid	524
Pardoned	31
Died	8
Bailed	5
	5,527

Summary.

Remaining July 3, 1883	648
Committed since	5,724
	6,372
Discharged since	5,527
Remaining January 1, 1884	845

HOUSE OF REFORMATION.

Commitments for —

	Boys.	Girls.	Total.
Larceny	9	1	10
Stubborn child	8	1	9
Breaking and entering	6	2	8
Being accessory before the fact to the burning of a building	2		2
Burning a building	1		1
Embezzlement	1		1
Truant		1	1
	27	5	32

Causes for Discharge.

	Boys.	Girls.	Total.
Expired sentence	8	1	9
Pardoned	26	4	30
	34	5	39

Summary.

	Boys.	Girls.	Total.
Remaining July 3, 1883	79	13	92
Committed since	27	5	32
	106	18	124
Discharged since	34	5	39
	72	13	85
Remaining January 1, 1884			

TRUANT SCHOOL.

Commitments for—

Truants	44
Absenteeism	16
	60

Causes for Discharge.

Expired sentence	30
Pardoned	25
	55

Summary.

Remaining July 3, 1883	147
Committed since	60
	207
Discharged since	55
	152
Remaining January 1, 1884	

Respectfully submitted,

JOHN C. WHITON.

DEER ISLAND, Boston Harbor, Jan. 2, 1884.

SUFFOLK COUNTY JAIL.

BOSTON, January 2, 1884.

To the Inspectors of Prisons in the County of Suffolk: —

GENTLEMEN, — At the date of your last inspection, June 29, 1883, the number of prisoners in this Jail was . . .		169
The total number committed since that date to January 2, 1884		1,579
		1,748
Total number discharged from June 29, 1883, to January 2, 1884		1,586
Remaining in custody January 2, 1884		162
Males, 147, females 15		162

Twenty-three persons have been committed for debt, one only now remaining in custody.

There have been no deaths and no escapes since the last report, and the general health of the prisoners has been good.

A new padded cell for women has been constructed, which will be a great convenience for those who may be suffering from delirium tremens.

The medical care of the prisoners in Jail has been under the care of Dr. J. H. McCollom, the City Physician, who has daily visited the Jail, and most faithfully discharged his professional duties.

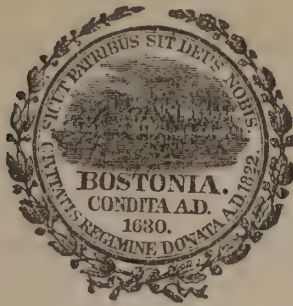
To-morrow, after twenty-eight and three-quarters years of continuous service, my term of office will end. I shall then deliver over to my successor in office, Sheriff John B. O'Brien, the care and custody of the Jail.

With great respect, I am your obedient servant,

JOHN M. CLARK,

Sheriff, Keeper of the Jail in Suffolk County.

CITY OF



BOSTON.

ORDINANCES OF 1883. — CHAP. 19.

CONCERNING HAWKERS AND PEDLERS.

In the Year One Thousand Eight Hundred and Eighty-four.

AN ORDINANCE IN RELATION TO HAWKERS AND PEDLERS.

Be it ordained by the City Council of Boston, as follows:—

SECTION 1. No person shall sell or expose for sale, as a hawker or pedler, on any street, any fish, lobsters, oysters, hell-fish, fruit, or vegetables whatsoever, except by permission of the Board of Health.

SECT. 2. The above-named substances shall be so carried and conveyed that they shall not tend to injure or annoy the public health or comfort, and in such vehicles or receptacles, to be approved by the Board of Health, as will best secure such health and comfort. Said receptacles shall be kept cleanly always, and shall be inspected thoroughly the first Monday in each month, at the city stable in North Grove street, by an inspector of the Board of Health.

SECT. 3. Every such vehicle or receptacle shall have the name of the person to whom the permit has been granted, and the number of the said permit, painted thereon in letters and figures at least two inches in size.

SECT. 4. The Board of Health may revoke any permit granted as above for wilful violation of these regulations, or for continual or habitual disturbance of the public peace or comfort.

SECT. 5. Every violation of any of the provisions of this ordinance shall be punishable by a fine not exceeding twenty dollars.

IN COMMON COUNCIL, January 3, 1884.

Passed. Sent up for concurrence.

GODFREY MORSE, *President*.

IN BOARD OF ALDERMEN, January 5, 1884.

Concurred.

HUGH O'BRIEN, *Chairman*.

Approved, January 5, 1884.

ALBERT PALMER, *Mayor*.

A true copy. Attest:

FREDERICK E. GOODRICH, *City Clerk*.

ADDRESS
OF
GODFREY MORSE,
PRESIDENT,
TO THE
COMMON COUNCIL,
JANUARY 3, 1884.



BOSTON:
ROCKWELL AND CHURCHILL, CITY PRINTERS,
No. 39 ARCH STREET.
1884.

CITY OF BOSTON.

IN COMMON COUNCIL, January 3, 1884.

On motion of Mr. Hilton, the following resolution was passed, the question being put by the Clerk, and the members rising in their places and voting therefor unanimously :—

Resolved, That the thanks of the Common Council of the City of Boston are due and are hereby tendered to Mr. Godfrey Morse, for the able, courteous, and dignified manner in which he has discharged his duties as President during his term of office, and that, in parting, he takes with him our hearty wishes for a long and prosperous life.

To this resolution of thanks the President made a reply, and then, on motion of Mr. Fitzpatrick, it was

Ordered, That the President be requested to furnish a copy of his closing address, that the same may be printed and bound with the City Documents.

Attest :

W. P. GREGG,
Clerk of the Common Council.

A D D R E S S .

Gentlemen of the Common Council:—I beg to offer you my most profound acknowledgments for the compliment you have just bestowed upon me in the passage of this order. It is indeed grateful and satisfactory to me to know that my endeavors to faithfully and fearlessly discharge the duties to which you assigned me met with your appreciation and approval. I can assure each and every one of you that my only aim and object in every official act of mine, as your president, has been to fulfil the requirements of my office with equal fidelity and fairness to each one of you, and to the city which we have served; and I may add that it is no easy task to always meet the views of members, in all the various stages of contention, in a deliberative assembly like ours. If I have made any errors I must ask your forgiveness; they were, I assure you, of the judgment, and not of the will.

This is the last time that the Council of 1883 will be in session, and I will take this occasion, before we part, to recall some of the more important of

our official acts. Whatever we have done is now part of our municipal history, and I firmly believe that the future historian of Boston will have much to recount which will redound to our honor.

I can safely say that the appropriations made this year for carrying on the government of this city have been wisely made for objects of great public need.

The relocation and widening of

WARREN BRIDGE

will be fully completed in the course of a few months, at a total cost of \$400,000, including land damages. It must be conceded that this improvement is of great importance to the Charlestown District, as well as to the city proper, and that the public necessity required and warranted the large expenditure called for.

PUBLIC BUILDINGS.

Our public buildings, including the school-houses, required an outlay of \$346,762.32, viz.: repairs, alterations, fitting, and furnishing of buildings used for school purposes, \$180,784.62 ; other public buildings, \$165,977.70. This is a large outlay, and,

for school purposes, is in excess of the anticipations of the department, and may be accounted for, in a large measure, by the expense of hiring and fitting up buildings for school colonies in over-crowded school districts, which could not be foreseen at the beginning of the year. Two new school-houses have been completed during the year, namely, the Grammar School-house on Kenilworth street, and the Primary School-house on Harvard street; and these are now occupied for the purposes for which they were erected.

The following school-buildings are in process of erection: —

Addition to the Auburn School-house, Brighton.

Addition to the Chapman School-house, East Boston.

Addition to the East Boston High School-house.

Addition to George Putnam School-house, Roxbury.

Primary School-house, Harbor View street, Dorchester.

Primary School-house, O street, South Boston.

In this connection I take great pleasure in referring to the appropriation of \$2,500 recently voted to the School Committee, for

INDUSTRIAL EDUCATION,

and I look forward to the time when this branch of public instruction will form an important adjunct to our system of public schools. The time is fully ripe for the experiment. The days of apprenticeship are past, and master-workmen find it difficult to procure suitable young men for their employ. Competition in the industrial world is so great that there is a wide field open for educated mechanics. I mean by that for those of our youth who are educated *for* mechanics. Skilled workmen find ready employment and command good wages, and I believe a course of industrial education in our schools—for those who may elect to enter the industrial field—will contribute much to the happiness and prosperity of a very large class of our citizens.

The sum of \$245,000 has been expended on the streets of the city during the past year, of which the following is a brief detail:—

24	streets have been laid out at a cost of	\$92,000
12	“ widened “	\$105,000
6	“ extended “	\$42,000
3	“ relocated “	\$6,000

This expenditure includes the extension of Com-

monwealth avenue at a width of two hundred feet, some two miles in length from Brighton avenue through the Brighton District to Chestnut-hill avenue, opposite the Reservoir, and will form one of the grandest avenues in the world.

IMPROVED SEWERAGE.

This great work is so far completed that it has been in successful operation since January 1st. Its object is to convey the sewage as it runs from the houses direct to the harbor at Moon Island, where it is emptied into a strong tidal current at ebb-tide, which will carry it out into Massachusetts Bay. In this way the deposits of the sewage impurities in the docks and on the flats around the city, and also the retention of the sewage, during high-tide, in the present system of tide-locked sewers, are avoided; the noxious gases generated by these practices will cease to exercise their baleful influence upon the health of the community, and Boston avails herself of the most improved system for the disposal of sewage that is now known for large seaboard cities.

The system has been so often described, and is so familiar to the members of the City Council, that any detailed description of it is needless.

The general features of it are the intercepting and the main sewers, the pumping-station, the Dorchester-Bay tunnel, the Moon-Island reservoir, and discharge sewers. All of these works are upon a scale of such magnitude, and designed and built in such a substantial and thorough manner, that no doubt can be entertained in regard to their capacity and to their permanent efficiency. Careful study of the direction and velocity of the tidal currents at the point of outlet, at Moon Island, warrants the belief that no more trouble is to be experienced from the return, to the shores of Boston, of the contents of its sewers.

The main points of the work have been brought up to a sufficiently complete condition to allow of the uninterrupted flow of the sewage to Moon Island; but many details remain to be carried out before the scheme is entirely completed.

The whole appropriation for the construction of the improved sewerage amounts to \$5,253,000, of which \$4,544,522.89 has been expended.

One of the most important acts of this Council, during the year, was the vote removing the former members of the

BOSTON WATER BOARD.

It may be somewhat premature to pass an entirely satisfactory judgment upon the wisdom of our act, but there can be no doubt that the public sentiment was strongly in favor of a change. The present Water Board has thus far displayed much earnestness and vigor in its department, and the various works under its charge are being pushed with commendable energy.

FIRE DEPARTMENT.

The city has been reasonably free from large fires, though the number of alarms has exceeded that of previous years. The Board of Fire Commissioners has kept pace with the times by adding improvements in fire-alarm telegraph, houses, equipments, and apparatus. The discipline of this force, like that of our police, is excellent; and the standing of both forces is unsurpassed by that of similar organizations in the country.

THE BOARD OF HEALTH

is watchful, and carefully guarding the citizens in regard to the adulteration of food, drugs, and other

sanitary matters; and on the alert to prevent the introduction and spread of contagious diseases.

NEW PUBLIC LIBRARY BUILDING.

Undoubtedly one of the most gratifying acts of this government is the passage of the orders relative to the erection of a new Public Library building on Dartmouth street. For this purpose the sum of \$180,000 is to be applied for the purchase of land additional to the gift of the Commonwealth, and \$450,000 for the erection of a suitable building. Steps have already been taken to procure the best architects to submit plans, and the sum of \$10,000 has been set aside for this purpose. This is probably the largest amount ever offered in prizes for building-plans in this part of the country, and can hardly fail of bringing important designs and much useful information on the subject.

In this connection it is proper to mention the generous bequest of \$50,000 of the late Arthur Scholfield to the Public Library. It is a noble gift, — equal to that of the late Joshua Bates, the American and English banker, — by the son of a well-known Boston merchant, and is an honor to the city, the donor, and the family of which he was a member. The city was also the recipient

of valuable books, prints, engravings, and plans of the City of Paris, France, from that municipality, which have been placed in the Public Library; and steps have been taken to reciprocate this generous gift by providing for the presentation to the municipality of Paris of a similar collection of volumes, prints, etc., relating to Boston.

In the matter of our

PUBLIC PARKS,

it is gratifying to know that the West Roxbury Park, the City Point Park, and Wood-Island Park, East Boston, were opened to the public on May 1st last; and that the Back-Bay Park and its connections are rapidly assuming shape, and will be ready for the public use in the near future.

CITY DEBT.

Our gross debt has now reached the enormous amount of \$42,544,123.96! This sum requires an annual tax of over two and a quarter million of dollars for interest alone, and this year the percentage required under the statutes for the sinking funds amounted to \$768,278; and it is already

apparent that both of these amounts must be increased in the next year.

While our citizens demand great economy in the expenditure of the appropriations, the many petitions for work to be done by the departments, *a portion of the expense for which must be paid by the citizens*, seem to indicate the readiness to pay for improvements.

It is an interesting fact that in the last financial year, covering the period between May 1, 1882, and May 1, 1883, the amount paid for

SALARIES AND LABOR

was \$5,190,000, or over one-third of the actual expenses of the city. From this it will be seen how large a number of citizens depend for their support upon the city, and how large a sum of money finds its way back again to the citizens among whom it is spent.

The question of

TAXATION

is of perpetual interest, and efforts are sometimes made to compare the weight of the public bur-

dens of our citizens, with those of other municipalities. But it is obvious that this is not only a difficult, but practically an impossible undertaking. It requires for its accomplishment an intimate knowledge of the various systems of State, county, and municipal taxation, as applied to our sister cities; and, also, that the investigator should know the extent and quality of the work that is done, and its influence on the present and future welfare of the community in which the tax-fund is expended.

The last phase of this question is well illustrated by a comparison of the sewage systems of Boston and Baltimore, cities of about the same size. The former has just spent over \$4,000,000 for an intercepting sewer; the latter has no sewers at all, but depends upon surface-drainage.

Bostonians demand more and better schools and department-work from their government than the residents of other cities are accustomed to receive; and, while this amount and quality of service are required, the payment of the bills will necessitate what may be considered heavy assessments; but they will be borne, if those that pay the taxes are satisfied that they are getting a fair equivalent for their expenditure.

VISITORS.

During the past year many distinguished gentlemen have visited Boston, notably among these were ex-President Diaz, of Mexico; Messrs. Jobbé-Duval and Amouroux, of the Paris, France, municipal government; Lord Chief Justice Coleridge, of England; Governor Jarvis, of North Carolina; Governor Cameron, of Virginia; a delegation of French workingmen; and the ambassadors from Corea. Nearly all of these gentlemen received the hospitality of our city, and expressed themselves gratified with their visit.

I have thus far sketched briefly some of the more important topics which have engaged our attention during the past year. I hope I shall be pardoned if I depart from the beaten track, and make a recommendation or two to those who follow us.

TERMS OF OFFICE.

In the beginning of the year, you may remember, I offered certain orders looking to the lengthening of the terms of office of the Mayor, Aldermen, and members of the Common Council. I still believe it would be wise for our successors to ask the General Court for legislation to

that end. A term of two years for a member of the City Council will overcome the difficulty which might arise with every new city government,—that of its lacking experienced members. It will also tend to secure more independence of action of the members of the government. That a member serving a second year is more valuable to the city than one serving the first year, can admit of no doubt.

RESPONSIBILITY FOR EXPENDITURES.

Another matter to which I invite the serious attention of the next Council is the manner in which the appropriations are spent. Under the present system of administration only the committees in charge have a voice. Eight men spend the vast sums of money annually appropriated for the specific objects to which the money is to be applied. Take the subject of Improved Sewerage: a committee of eight awarded all the contracts, and directed the expenditure of nearly five millions of dollars! What voice did the other seventy-six members of the City Council have in the disposition of this vast sum for this purpose? Virtually none. Take the rebuilding of Warren Bridge, or the

building of a new Public Library, what voice has any one — not on the committees having charge of those works — in the prosecution of them? Virtually none. The present system may be the best one that can be devised. I know it is easy to criticise; it is easy to tear down, and very difficult to build up. I do not know that I can recommend any improvement in the premises, except to suggest that each branch of the government should have reported to it the recommendations of the committees for the awarding of this contract or that; and that no contract should be entered into until accepted by both branches of the City Council. This may be a cumbersome method of despatching the public business, but I think it the safer way, and in the interest of the public welfare. Publicity in matters of this kind can never be injurious to the tax-payers. While my suggestion may not be the best means to accomplish the purpose I have indicated, I throw it out simply to awaken other thoughts in those who will have the city's welfare in their hands for the coming year.

COUNCIL RULES.

In the manner of conducting the business of this Council I would recommend the adoption of a rule

providing for the call of "reports of committees," and "motions, orders, and resolutions," by divisions or by wards. In this manner every committee and every member, having a report or order to offer, obtains a more equitable chance of recognition by the Chair.

I also recommend our successors to adopt the rules proposed by the Joint Special Committee on Refreshment Bills found in City Document No. 43, which were passed by this Council, but not concurred in by the Board of Aldermen. I am strongly of opinion that the adoption of such rules will do away with many of the unpopular features now connected with the contraction of such bills.

CONCLUSION.

In conclusion, gentlemen, I desire to express my appreciation of the valuable services rendered us by our venerable and efficient Clerk and his valuable assistant; by the Clerk of Committees; by the City Messenger and his assistants; and in general to testify to the uniform efficiency and urbanity of all the officials connected with the City Hall.

I congratulate you that the labors of the year are ended; that while our original membership

has undergone a few changes, no black lines of mourning will be found to mar the pages of our proceedings. To each and every one of you I wish a happy and prosperous life, whether you are engaged in public service or in your own private affairs, and, as we part, let not our interest in the city's progress cease, but let us vow eternal devotion to her welfare.

CITY OF



BOSTON.

FINAL PROCEEDINGS

OF THE

BOARD OF ALDERMEN.

IN BOARD OF ALDERMEN, Jan. 5, 1884.

After the business of the Board had been concluded, Alderman WOOLLEY arose and said: —

Mr. Chairman, — I wish to offer a resolution, which I will ask the Clerk to read. In doing so, I would say that the resolution hardly contains the words in which I would like to express my appreciation of the impartial manner in which you have performed your duties as chairman of this Board, and the courteous treatment which my associates and myself have always received from you. The words of the resolution feebly express the regard of my associates and myself for you, Mr. Chairman.

The resolution offered by Alderman WOOLLEY was read, as follows: —

Resolved, That the thanks of this Board are due, and are hereby tendered to, Alderman HUGH O'BRIEN for the efficient manner in which he has discharged the duties of chairman during the year now closing. His thorough information concerning the interests of the city and the requirements of the public service in the several departments has been of great advantage in the deliberations of this Board; and his promptness in the despatch of business and his unvarying courtesy and impartiality have largely contributed to render its sessions agreeable as well as profitable. He retires from office with the cordial wishes of his associates for his continued prosperity and happiness.

The question was put by the Clerk, and the resolution was adopted by a unanimous rising vote.

Alderman O'BRIEN then spoke in response to the resolution as follows: —

Gentlemen of the Board of Aldermen, — Accept my thanks for your kind words at the close of one of the most hard-working years that I have experienced in the Board. The complimentary terms in which you have alluded to me, and the esteem in which I am held by my associates, more than repay me for all the adverse criticism of the year. Conscious of the fact that my only desire has been to bring about an economical and efficient administration of the City Government, I am satisfied that the work accomplished the past year by the different departments will bear investigation, and that the record will compare favorably with the records of previous administrations. I do not hesitate to bear testimony to the faithfulness with which you have performed your work, and the promptness with which you have always been ready to give your time to committee work and to the consideration of all questions that came before us. The year has been an eventful one in many respects; but I am satisfied you have been faithful to the trust confided to you, and that your work will tend to promote the growth and prosperity of the city.

I have been requested by some of my associates in the Board to give a *résumé* of the business of the year. I have had very little time during the past two weeks to do this. The counting of votes, the close of committee work, and the rush of important business, as usual at the close of the year, have occupied nearly all my time. A great deal might be said about the work of the past year; but it is a matter of record, and time will vindicate and justify your action on all the leading questions you have had to consider. We have been called a Democratic partisan administration, and our work has been adversely criticised by a Republican press from a partisan stand-point. It has also failed to meet with the approval of the majority of voters at the recent election. At the same time you are neither discouraged nor dismayed. You have performed your duty; and your record and your work you feel will stand the test of criticism from an unprejudiced stand-point. Some mistakes have been made. We do not claim perfection. But, I might ask, what administration in the past has been free from mistakes? Some old and faithful officers, whose terms had expired, have been replaced by others who have been equally faithful; but such a result is likely to follow while our laws make these offices

elective every year. Civil service is a good doctrine to preach, but it is one that is seldom practised in the general government, in the State or in the city. We must plead guilty, and admit that its merits have not been fully recognized by this administration; but we fail to see where the city has suffered, as competent men are now at the head of every department.

JUNKETING.

Early in the year more than usual attention was devoted to junketing, — a custom for which you were not responsible. It has been handed down to us by all previous administrations since Boston became a city, and has been open to more or less abuse in every administration. With eighty-four representatives in the City Council, it would be remarkable if some few did not exceed the bounds of propriety. Human nature has its weak points, and the members of the City Council are not exceptions to the rest of mankind. One of the most difficult matters to arrange is the regulation by joint rules and orders what men will eat and drink. All such rules have proved worthless in past years, and have never been practically in force. The discussion of the question, however, has taken up valuable time. It is a remarkable fact that many intelligent members of the City Council have frittered away almost the entire year looking after junketing bills, to ascertain if they could not make a point to place their associates in a disagreeable position, and, when any such information was obtained, it was sure to be made public. I am satisfied that the question of junketing has been a drawback to other more important work. If the members had given the same time to the examination of the great improvements now in progress of completion they would understand them better, and be able to vote and act more intelligently. It appears to me that the old and time-honored custom of refreshments, that has been handed down to us by so many distinguished and illustrious city fathers in past years, must go. It has had its day, and has now become a public scandal by the publicity given to it. In past years there have been even greater abuses of the privilege than have lately prevailed; but the abuses were always covered up, and were not allowed to see the light of day. If the traditions of City Hall are correct they have far exceeded in the past anything of recent occurrence. The publication of the items and names affects the innocent and guilty alike, and it appears to me should be stopped, if the custom continues. Any abuses might safely

be referred to the Mayor, the chairman of the Board of Aldermen, and the President of the Council, and their decision should be final. When the City Government was exclusively Republican no record of items or names could be found. At that time it would have been considered a breach of good manners to make such matters public. An appropriation of \$15,000 was made, to be expended under the charge of a joint committee, to entertain distinguished strangers from abroad, and also from other States, while the two fairs were in progress, and of that amount about \$6,000 has been expended. The work of the committee is now finished, no names have been published, and a great many persons, in high positions abroad and at home, have left us with a very favorable impression of Boston people and Boston hospitality.

CONTRACTS.

Your attention to the work of the different departments the past year is a business record of which you may feel justly proud. No one can point to a dollar that has been wasted, or to a contract that has not been given to the lowest responsible bidder. No contractor and no corporation has grown rich by any city patronage. This remark applies to all the years that I have been in the city government. The city is guarded at every point, and the business has always been conducted on strict business principles. My experience in the sewer department in the years 1879, 1880, and 1881, led me to the conclusion that that department was a poor place for contractors. Nine-tenths of the work was done by contract, and contracts were always made with the lowest bidders. There was always a large number of bidders for each job of work, and I am satisfied that no contractor got more than a fair price for the work done. Some of them did not obtain more than cost, and quite a number of them completed their work at a positive loss.

THE NEW SEWER.

The improved sewerage work was commenced in 1877, under Mayor Prince, and has been carried on by the Joint Committee on Improved Sewerage, under the direction of the City Engineer. This has been a great work, and great difficulties had to be overcome. From its inception the work has made steady progress, and has been done largely by contract. What contractor, however, has made any money out of the work? Not one. On the contrary,

it has failed almost every large contractor who has had anything to do with it. I have no hesitation in saying that, under the direction of the committee and the City Engineer, this great work has been carried on and is now nearly completed, and that the cost to the city has been less than the actual cost. No contractor engaged on the work has received a fair remuneration for his services, superintendence, and risks. The amount of money appropriated is more than sufficient to complete the entire work. If it was under the charge of a board of public works, I doubt if the work could have been done more economically. The City Engineer and the Assistant Engineers and Inspectors have been faithful, and contractors have been held up to the letter of the contract, except in cases where the conditions were released by an order of the City Council; and these exceptions were only made when it became evident that the contractor was completely broken down, and it was for the interest of the city to do so. No part of the work has been neglected. The chairman of that committee, Alderman Slade, who has given so large an amount of his time to this work, deserves the thanks of our citizens generally. It is a well-known fact, however, that he came near being defeated this year, because, under an order of the City Council, he extended the hospitalities of the city to the Continental Guards of New Orleans on the Empire State, — an excursion that has been greatly exaggerated and misrepresented. The committee, however, who had charge of that excursion, who were candidates for reëlection, have been returned; and this is an evidence that the statements about it did not have much weight with the public. The work is now nearly completed, and improved sewerage on the first day of the new year became a practical fact. The expenditures made by the committee this year have amounted to \$1,033,962.17. This is one reason why the city debt, although smaller than ten years ago, has been increased this year. The expenditure did not originate with us, but we are willing to take the responsibility. Permanent improvements must continue for years to come, if as a city we would attain our proper place in the nation. It is a fact, also, that the appropriation for improved sewerage was made and work commenced under Mayor Prince, in 1877, and has been practically completed under Mayor Palmer, in 1883. Both these administrations were called partisan administrations, and were defeated the next year. I am satisfied that Boston has now the best sewerage of any city in the country, and that our system will attract more attention than any improvement that has been made during the past fifty years.

THE PARK SYSTEM.

Our system of parks, inaugurated under Mayor Prince, has engaged the attention of the Board of Park Commissioners during the year, and many estates have been purchased and much work accomplished. The expenditures in the several parks have been as follows :—

West Roxbury	\$351,249 95
Back Bay	178,048 15
City Point	107,813 87
Charles River Embankment	125,464 00
Arnold Arboretum	39,841 52
Muddy River Improvement	36,200 90
East Boston	5,196 32
Total	\$843,814 71

The park system, now fully inaugurated, will make Boston in the course of years the most attractive city on the continent. Considerable progress has been made during the year, and additional debt has been incurred ; and still Boston has not been ruined, as the actual debt to-day is less than it was ten years ago.

THE WATER QUESTION.

A reorganization of the Water Department has been one of the prominent features of this administration. It was not a hasty or partisan movement, merely to make a change in the members of the Board ; but it was a change demanded by the public, and was sanctioned by a large vote of the City Council. There was great dissatisfaction with the work of the old Water Board. When the new Board commenced work, the department appeared to take a new lease of life, and, by active and systematic work, has already accomplished important results. The public want pure water, an increased supply, and stoppage of waste. The new basin, No. 4, has been pushed forward vigorously, and sufficient money has been voted to make it the best basin that engineering skill and careful study can accomplish. All vegetation and other substances that interfere with the purity of the water will be removed. The improvement of old basins has been commenced, and the defects of previous work are to be made good. This work has made considerable progress during the year. By a system of house-to-house inspection, never enforced by any previous Water Board, considerable

waste has been stopped, with the promise of far greater and more beneficial results in the future. I have no hesitation in saying that there has been more efficient work in that department, since the new commissioners commenced work, than in any previous year. The improvements have been well matured and considered, and have been based on the practical knowledge and experience of engineers and commissioners who have for years made our water system a study. It is hoped, for the prosperity of the city, that the next city government will push forward the work in the same spirit. With a consumption of ninety gallons per capita, we have already reached the limit of our supply, and there should be no hesitation about it. The water supply is by far the most important question the City Council has to consider. What distress would follow if the supply of water had to be discontinued to manufacturers and large consumers ! It would turn thousands of mechanics and workmen out of employment. This emergency is almost upon us. The consumption of water is increasing rapidly, and the demand must be met. We have not hesitated, therefore, to appropriate large sums of money to complete the work. Hesitation on the part of previous city governments has been almost a crime. So far as this Board is concerned, we at least must feel that we have done our duty, and the responsibility of continuing the work must rest on others. There has never been a year when applications for steam-boilers have been so numerous, each a large consumer of water, and this fact alone is an indication that the consumption of water is rapidly increasing. Our consumption now is double what it was ten years ago. Our consumption ten years from this time will be double what it is now. No city government can afford to stand still and neglect the water supply. I believe the energetic action of the present Water Board has been of great service to the city. Every branch of the department has been pushed with an energy it has not known for years. The expenditures for permanent improvements during the year have been as follows :—

Additional supply	\$346,851 55
New main	68,356 00
Introduction of meters and inspection	16,885 38
Total	\$432,092 93

This expenditure has somewhat increased our debt ; but will any citizen of Boston find fault with us for taking the responsibility ?

SCHOOL-HOUSES.

A reference to the Auditor's report will show that the erection and improvement of school-houses has been a prominent feature of this administration, and that we have appropriated a much larger amount of money than usual for this purpose. We have been accused of cutting down appropriations in order to make a low tax-rate. While this remark is not true when applied to any department expenses, it falls far short of the mark when we consider the work done and now in progress to give our boys and girls proper school accommodations. The appropriations and transfers this year exceed those of last year some \$263,000. Why should there be such an extraordinary increase? Simply because the government of 1882 failed to perform their duty in this respect, and we had to provide for their deficiencies. The government of 1882 failed to make proper provision for the large increase of school-children in this city, and more work was forced on us. We did not hesitate. This partisan administration, as it has been called, representing, it has also been said, the worst elements of the city, did not hesitate to vote for necessary and proper accommodation for our children without regard to what the tax-rate would be, and we have the consciousness of doing a work which our predecessors failed to meet. The increased demand for school accommodation shows how rapidly we are growing, and the demand for school-houses should be promptly met. A statement of the work of the Department of Public Buildings will make this matter more clear and apparent. The following is the work in progress or completed by that department the past year:—

Primary School-house, Bunker Hill street . . .	\$25,000
Addition to Auburn-street School-house . . .	5,000
Addition to Chapman School-house . . .	13,591
Chapman School-house, furnishing . . .	2,000
Addition to school-house lot, Sumner street, Dorchester	7,500
Addition to East Boston High School . . .	35,000
East Boston High School, furnishing . . .	2,000
Enlargement of Lexington School-house lot . .	2,300
Completion of George Putnam School . . .	15,000
Grammar School-house, Hammond park . . .	78,000
Grammar School-house, Kenilworth street . .	42,046
<i>Amount carried forward,</i>	\$227,437

<i>Amount brought forward,</i>	\$227,437
Grammar School-house, Kenilworth street, furnishing	6,200
Grammar School-house, Minot street, Dorchester	8,200
Primary School-house, Harbor View	12,000
Primary School-house, Howard avenue	31,317
Primary School-house, Howard avenue, furnishing	3,500
Primary School-house, Main street, Charlestown	42,085
Primary School-house, O street	50,000
Primary School-house, Parker street	30,000
Primary School-house, Savin Hill avenue	6,200
Primary School-house, vicinity of Blossom street	100,000
School-house, Breed's Island	7,960
School-house appropriations, public buildings,	169,000
Total for the year	\$593,899
Last year	\$330,184

Nearly all this work was a necessity last year; was still more of a necessity this year. Our boys and girls were crowded together in school-houses not half large enough to give them proper accommodation; the sanitary condition of the schools was not satisfactory on account of overcrowding, and the health of the children was endangered. You, gentlemen of the Board, have recognized the growth of the city, the wants of our school-children, and have performed your duty faithfully. From a personal knowledge of the facts, I now state, without fear of contradiction, that every contract made by the Committee on Public Buildings was given to the lowest bidder; that each contractor was required to give bonds for the faithful performance of the work, and that each contractor was held up to the letter of his contract by intelligent and competent inspectors. Is not this doing business in a business way? No one can show that a dollar has been wasted in that department. The work done in relation to school-house accommodation this year is in striking contrast with the work done by the government of 1873, when Hon. Henry L. Pierce was mayor. This year the City Government is called a Democratic partisan government. In 1873 the government was a partisan Republican government. In that year the following school-house appropriations were made:—

Primary school-house, Ward 9	\$60,000
Grammar school-house, Dudley District.	20,000
Primary school-house, East Boston	80,000
Police station-house, South Boston	45,000
Hose-house, Longwood	28,000
Engine, Hook and Ladder house, Ward 5	50,000
Grammar school-house, Ward 15	63,000
Highland-street stable	85,000
Engine, Hook and Ladder house	15,000
Station-house, District 11	40,000
Primary school-house, Newbury street	40,000
 Total	 \$526,000

It will be seen that \$526,000 was appropriated in 1873 principally for school-houses, and every dollar of this amount was on a loan for ten years. Not a dollar of that amount was taken out of the tax levy for that year, and every dollar of that \$526,000 was due and paid this year. If we had proposed to build school-houses on a loan for ten years how savagely the Republican press would have criticised our work! How much they would have condemned us! Henry L. Pierce was mayor of the city in 1873. In the Board of Aldermen was Thomas Gaffield, of Citizens' Convention notoriety, John T. Clark, Solomon B. Stebbins, William Sayward, Alanson Bigelow, Chas. Hurlbert, John Brown, and Samuel M. Quincy. The amount of money paid out of the treasury for school buildings the past year, taking the amount saddled on the city by a loan in 1873, must have been near \$1,000,000. We have squarely met the issue and put the appropriation this year in the tax levy. This partisan City Government, said to have been the worst we have ever had, need not fear a comparison with 1873. It makes considerable difference, however, who spends the money. It has also been surmised that some members of the Board of Aldermen in 1873 had a large interest in the contracts made that year.

PAVING.

The Paving Department is a difficult one to manage, with branches in different sections of the city, with assistant superintendents and foremen, and a large body of men to manage and control. The changes made in the head of this department may have led some to suppose that there has been mismanagement; but an examination of the record will show the reverse. The present Superintendent has had a large experience in city affairs, and the work done and accomplished

will compare favorably with previous years, when we consider that the appropriation has been the smallest for some years. There will probably have to be some transfers to complete the work of the year; but I am satisfied that our reserved fund, with other balances of appropriations available, will be sufficient to meet all demands upon it. At this season of the year the work in that department is, to a great extent, suspended. Very little can be done on our streets, except to remove snow and ice, during January, February, March, and April. What work is done is mostly preparatory work in the different yards. Our streets are in a very good condition, and it is doubtful if much more work could have been done in the department had there been voted a larger appropriation, as it has been difficult during the year to get paving-blocks promptly. To avoid this difficulty next year, paving-blocks will be contracted for, under an order passed a few weeks ago. A great deal has been said about the bad condition of our streets after the recent snow-storms, and several departments have been severely censured for neglect of duty; but without good reason. The storm might be called a visitation of Providence, which the Paving and Health Departments and the force of the horse-railroads could not control, except in a reasonable time.

OTHER DEPARTMENTS.

In the Lamp Department good work has been accomplished under the able superintendence of Mr. Toland. I believe it is the unanimous opinion of all who have dealings with that department that in no previous year has the work been done more systematically or economically. The appropriation is fully equal to the wants of the department. A large number of new lamps have been placed in localities where most wanted, and the city is now better lighted than it ever was before.

We have not neglected the Back Bay, although the people of that section have very freely denounced the present City Government. At this season, however, when peace and good-will is preached, we forgive them. "They knew not what they did." Copley square has been filled and graded, and the contract has been made for the curbing. The Public-Garden pond has been cleaned, improved, and purified. Huntington avenue has been extended; an appropriation has also been made for Massachusetts avenue, and the public park in that section has made great progress. The new Public-Library building has also been located in that section, to make it more attractive.

The growth of the city has demanded the widening and extension of many small streets, and the continuance of the work of widening ordered in previous years. The total of these expenditures has been \$490,610.50.

The new head-house, at the North ferry, has been completed, and is a very creditable affair. A new ferry-boat has also been built for the East Boston ferries, and that department is in better condition than for some years.

Among other general improvements are the construction of the covered channel of Muddy river and Stony brook, and the completion of the work of improving the channel of Stony brook in West Roxbury. For these improvements the expenses have been \$106,629.85.

There has been expended the sum of \$57,175 for a portion of the site for a new Public Library, on Dartmouth street, and ample provision has been made for the completion of the library building.

The work of rebuilding, relocating, and widening the Warren bridge has not progressed as it was hoped in the beginning of the work, various obstacles having arisen. The payments for land and work done have amounted to \$124,476.14.

From this brief review of the permanent improvements carried on during the year, for which a total of \$3,297,239.73 has been spent, it will be seen that much has been accomplished in the way of permanent improvements; and this while no regular municipal work has been left undone, and, also, at a lower rate of taxation.

I might allude, also, to other departments in the same spirit, — to the different commissions that have charge of important trusts; to the Law Department and the Assessors' Department, whose work is very important to the welfare of the city, and to departments where the work is exclusively clerical. If there is an impression abroad that these departments are made up of idlers, who do very little work and receive large pay, it is a mistaken impression. All these departments have certain duties to perform, and the employés are held to strict accountability. The Engineer of the city and his department have been crowded with work in superintending all the great improvements in water, sewerage, parks, and bridges now in progress. It has often been a surprise to me that the Engineer of the city could accomplish so much, or keep the run of all the work that is going on; but I know that he does, from personal observation and from my practical experience on the committees on water and bridges. The work of the Superintendent of Common is seen and admired by the citizens generally. With a comparatively small appropriation, economically managed, his

work speaks for itself. I again repeat that the work of departments has been faithfully performed, and fears no investigation or scrutiny.

CITY DEBT.

The unexpended balance on hand, as per Auditor's report, December statement, was \$5,692,099.50. In the December statement, 1882, the amount of unexpended balances was \$4,685,934.03; so that we pass over to the next City Government about \$1,000,000 more this year than we received from the last City Government. The last Auditor's report also gives the amount of the gross funded debt, the sinking-funds, and the net debt on the 30th day of April, for the last ten years:—

Year.	Gross Debt.	Sinking-Funds.	Net Debt.
1874.	\$42,890,785 77	\$14,328,725 82	\$28,562,059 95
1875.	43,414,829 99	15,038,899 68	28,375,930 31
1876.	43,848,835 73	15,813,209 07	28,035,626 66
1877.	43,590,497 30	15,437,043 24	28,153,454 06
1878.	42,457,022 47	15,770,085 70	26,686,936 77
1879.	42,359,816 23	15,794,035 69	26,565,780 54
1880.	42,030,125 36	13,786,108 29	28,244,017 07
1881.	40,949,332 18	14,511,849 19	26,437,482 99
1882.	40,079,312 04	15,633,229 37	24,446,082 67
1883.	41,184,358 12	16,156,795 43	25,027,562 69

This statement brings the debt record up to the end of the financial year, on the 30th of August; but the misrepresentations and false statements made about the large increase of debt recently, and the fact that these falsehoods were placarded all over the city previous to the last election, have led me to obtain the official figures from the Auditor up to January 1. The net debt, December 31, 1883, was \$25,311,635.52. Ten years ago the net debt of the city was \$28,562,059.95, or larger than the debt to-day by \$3,250,424.43. This does not look like ruining the city! While carrying on permanent improvements in the water supply, in sewerage, in parks, in street widenings, in bridges, and other improvements, costing, in round numbers, the past ten years, some \$20,000,000, our debt to-day is less than it was ten years ago, when these improvements commenced. The credit of the city has not suffered by your work; but what can we say of the work of men who claim to represent the better classes, who placarded our city with falsehoods about the debt, a few weeks ago?

The following is the city debt, January 1, 1884, as per City Auditor : —

Gross debt, Dec. 31, 1882 .	\$41,105,577 88
Debt issued during the year, \$3,278,500 00	
Debt paid during the year . 1,839,953 92	
Increase	1,438,546 08
Gross debt Dec. 31, 1883	\$42,544,123 96
Sinking Funds, Dec. 31, 1882	\$16,068,030 42
Receipts . \$2,244,737 19	
Payments . 1,744,443 26	
Increase	500,293 93
	\$16,568,324 35
Bonds and mortgages, payments on which are pledged to the payment of debt	664,164 09
	17,232,488 44
Net debt, Dec. 31, 1883	\$25,311,635 52
Increase of the gross debt	\$1,438,546 08
Increase of the Sinking-Funds	\$500,293 93
Increase of bonds and mortgages	7,641 65
	507,935 58
Increase of the net debt	\$930,610 50

THE ALDERMEN.

The work of an rlderman is not always appreciated, and, no matter how faithfully he may attend to the duties of the office, he is liable to be overlooked at the end of his official year, and may not receive even the compliment of a nomination. In 1877 Hon. F. O. Prince was Mayor of the city, and a large majority of the Board were Democrats. It was an active, energetic, business administration. Property at that time was very much depressed on the Back Bay, and what is now a public park was then a public nuisance. The Board of 1877 took hold of the work earnestly, and the order appropriating money for the Back-Bay park was passed. That section of the city was redeemed, extensive building

improvements were immediately commenced, and property largely increased in value. Time has shown the wisdom of the investment. This work was inaugurated and brought about by a Democratic Board of Aldermen, who saw its necessity and importance. The next year, however, Mayor Prince and his Democratic Board of Aldermen, who were up for reëlection, were defeated by the voters on the Back Bay, notwithstanding that section was more largely benefited that year than any other. This year the Charlestown bridge was the great necessity of that section. You have been in earnest in pushing it forward to completion; but if you examine the votes carefully you will find the voters of Charlestown did not appreciate your work in their interest. It is a noticeable fact that a Board of Aldermen that accomplishes but little is more likely to be returned than one that pushes forward necessary improvements required in different sections of the city. Sometimes very small things change the current of public opinion, while the good work that is done is overlooked.

THE POLL-TAX.

A very unfair comparison has been made, that the present Board of Aldermen were elected by certain wards of the city that pay but a small proportion of the tax; that you were elected by large majorities in wards that represent but a small amount of real and personal property. In this age of millionnaires it is, perhaps, a crime to be poor, and poll-tax men are considered by some of no account. The valuation of Wards 6, 10, 11, and 12 is \$330,561,900, or about one-half the entire valuation of the city. Should these wards be allowed exclusive privileges because great wealth is centred in them? If you do not represent money and real estate, however, you represent manhood; and manhood is the basis of a Democratic government. Why is it that so few wards of the city pay so large a portion of our taxes? When improved sewerage was under discussion in 1877, many large tax-payers opposed the work, and they thought we ought to defer to their judgment on that account. In answer to this I feel that I can do no better than repeat the words I then used: "Wealth centres in certain business localities; but what would this wealth amount to if the suburbs of the city, where we collect but a small amount of direct taxes, did not contain 250,000 consumers? These consumers are the life and substance of the business and the trade and the wealth of these rich wards. These 250,000 consumers have to expend every year for the necessaries, and, perhaps, the luxuries, of life, for something to wear and something to eat, at

least \$100,000,000 among these wealthy wards, where goods and merchandise are distributed; and it is from the money expended by them that these wards are able to pay so large a tax. Our magnificent and costly retail and wholesale warehouses would be mere empty shells without these 250,000 consumers around them. Taxes come into our treasury directly from the large tax-payers, but indirectly it is the people who will pay for this sewer improvement, and who pay for all improvements."

I have detained you, however, long enough. The official life of the "worst government" the city has ever had is drawing to a close. The record has been briefly placed before you. The city has not been ruined; our credit is unimpaired. Boston can borrow money to-day at lower rates of interest than any other city in the country. All obligations have been promptly met, and not a dollar has been paid from our treasury for which there is not a voucher. With upwards of \$16,000,000 in our sinking-fund we have no fear of the future. The new government has our best wishes and will receive our hearty support. It is only a change of men, and not a change of measures. All the improvements inaugurated by us and previous city governments, not yet completed, must go on, because these improvements have been carefully studied and wisely considered.

Thanking you, gentlemen of the Board, for your kind attention and consideration during the year, I can only say in return that you have my best wishes for your future prosperity.

At the conclusion of the address of the Chairman, on motion of Alderman Anthony, a committee was appointed, consisting of Aldermen Anthony and Devlin, to wait upon His Honor the Mayor, and ascertain if he had any further communication to make to the Board.

The committee retired, and presently returned, accompanied by His Honor Mayor Palmer, who took the chair, and said:—

Gentlemen of the Board of Aldermen,—I appear before you at this closing hour to express to you the kindest sentiments which arise as we are about to part. I congratulate you upon the work which has been accomplished by the municipal government during the year. You can felicitate yourselves that, for the municipal year 1883, you have had to do with the promotion and initiation of many public works

which will redound to the honor, renown, and prosperity of the City of Boston, in which we take so much pride. I congratulate you, and especially the committee in charge of the great undertaking, upon the approximate completion of the system of improved sewerage which the city undertook amid many doubts, amid great difficulties and misgivings; and I am happy to be informed that, as you visited it upon New Year's day, the prospect seemed to be that it would prove, according to the wishes of its promoters and architects, a complete success. I wish also to note with pride your support and aid to the Boston Public Library during the year, — an institution in which every Bostonian must take great pride; an institution which will stand for all time to come as the minister and monument of that public education which has made Boston and Massachusetts what they are. Your service in this regard, gentlemen, will be appreciated, I believe, in coming years, by the citizens of Boston. I also have to felicitate you upon the courage, promptness, and I believe the efficiency, with which you addressed yourselves to the difficult subject of the Water Department of the City of Boston. We came into power when there was an urgent and almost clamorous demand that something should be done. No one in the city could definitely state what should be done; but there was no mistaking the voice that came to us from all quarters: Attempt something, do something, whether you are certain that it is right or wrong; give us efficiency, and give us change. You met that public sentiment, and I believe that Boston feels that there is efficiency and improvement in this great and important department. To us it is not to measure results; to us it is not to say that everything will prove just as satisfactory as we hoped it would prove. But the work has been begun, and I think with every prospect that it will be successful and give to the city pure water and an abundance of it. These are some of the subjects which have engaged your attention during the year. The record is made; it is now closed. You and I must stand and be judged by the record and by the work. You, I know, are content to be thus judged. I join you, and say that I am willing to be remitted to the same tribunal and to the same verdict. And now, gentlemen, I congratulate you that you have been connected for a year, and some of you for many years, in this honorable service in behalf of the city. I congratulate you that many of you are retained in that service, and are still to be numbered for the year to come as high ministers of the City of Boston. I tender to you my thanks for all the kind expressions of respect and regard which you have given me, and I thank you for all the courtesy which

you have shown to me during the year. I desire to thank the City Clerk and his assistant, and all the officials in City Hall, for the promptness with which they have answered every request of mine, and for the sedulous care with which they have striven to anticipate every want. Now, gentlemen of the Board of Aldermen, I bid you a cordial good-by.

Alderman LEIGHTON offered the following : —

Ordered, That the remarks of the Mayor and the Chairman of the Board, together with the final proceedings of this meeting, be printed for the use of the City Government.

Passed.

On motion of Alderman O'BRIEN the Board then adjourned *sine die*.

Attest: FREDERICK E. GOODRICH,
City Clerk.

SCHOOL DOCUMENT NO. 22—1883.

ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

OF THE

CITY OF BOSTON.

1883.



BOSTON:

ROCKWELL AND CHURCHILL, CITY PRINTERS,

No. 39 ARCH STREET.

1884.

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REPORT.

The close of the year 1883 finds the public schools of Boston in a condition believed to be not inferior to that of previous years.

The evidences are to the effect that there have been a healthy progress, and even some improvement in methods and results, and in measures of financial economy.

The members of the Board of School Committee, to whom the management of such vast and comprehensive interests is intrusted, involving so many and important details, educational and financial, have just reason to claim from the citizens at large an attentive perusal of the records and documents which prove these facts, for the justification of the members of the committee as against the consequences of misinformation, and for the sake of better intelligence in the community regarding the system and its administration, — the conduct, operations, and fruits of which must necessarily produce an impress and educational effect and tone in the minds and characters of so large a body of pupils, every year changing and increasing, — who it is natural to suppose will form the principal portion of our future body-politic.

As every citizen has an interest in the trusts which the School Board has in charge, a correct

knowledge of the works of the Board ought to be obtained by him; and as the Board, elected by the citizens, ought always to be composed of capable persons, just, to every one alike, it is but right on the part of the people, and due to the committee (whose labors are too little understood by others), that, with sufficient knowledge of their doings, the people should judge whether or not the Board are faithfully performing their duties.

For a proper understanding and judgment on the subjects treated in an Annual Report, a reference to the same topics in previous reports, and a following of the same subjects in successive reports, is necessary; developments, growth, improvements, if any, as the results of intelligent application and experience, will be noticed, and the need of amendments, found requisite in all human affairs, will best be perceived.

STATISTICS.

In the field of our jurisdiction, during the present year, we have had the numbers of pupils and of schools, and grades of schools, given in the following statistics: —

Number of persons in the city between five and fifteen						
years of age, May 1, 1883	.	.	.	.	.	65,512
Increase for the year	.	.	.	.	.	1,086

NORMAL SCHOOL.

Number of teachers	.	.	.	.	.	4
Average number of pupils belonging	.	.	.	.	.	91
Average attendance	.	.	.	.	.	86

LATIN AND HIGH SCHOOLS.

Number of schools	10
Number of teachers	87
Average number of pupils belonging	1,906
Average attendance	1,785

GRAMMAR SCHOOLS.

Number of schools	51
Number of teachers	633
Average number of pupils belonging	27,425
Average attendance	24,420

PRIMARY SCHOOLS.

Number of classes	464
Number of teachers	464
Average number of pupils belonging	24,755
Average attendance	20,923

SPECIAL SCHOOLS.

HORACE MANN SCHOOL FOR THE DEAF.

Number of teachers	9
Average number of pupils belonging	82
Average attendance	66

SCHOOLS FOR LICENSED MINORS.

Number of schools	2
Number of teachers	2
Average number of pupils belonging	63
Average attendance	56

EVENING SCHOOLS.

Number of schools	14
Number of teachers	86
Average number of pupils belonging	2,570
Average attendance	1,618

EVENING DRAWING SCHOOLS.

Number of schools	4
Number of teachers	13
Average number of pupils belonging	394
Average attendance	312

RECAPITULATION.

Number of schools : —

Regular, 526 ; special, 21 ; total, 547.

Number of teachers : —

Regular, 1,142 ; special, 156 ; total, 1,298.

Average number of pupils belonging : —

In regular schools, 54,177 ; special schools, 3,109 ; total, 57,286.

Average attendance : —

In regular schools, 47,214 ; special schools, 2,022 ; total, 49,236.

EXPENDITURES.

Salaries of officers	.	.	.	.	.	.	\$57,038 83
teachers	.	.	.	.	.	.	\$1,123,154 90

INCIDENTAL EXPENSES.

By Committee on Public Buildings	.	.	.	.	.	\$189,350 83
By School Committee	.	.	.	.	.	\$233,617 93
School-houses and lots	.	.	.	.	.	\$77,628 73
Gross expenditures	.	.	.	.	.	\$1,680,791 22
Total income	.	.	.	.	.	\$107,486 88
Net expenditures	.	.	.	.	.	\$1,573,304 34

SCHOOL EXPENSES.

From a perusal of the last reports of the Committee on Accounts and the Committee on Supplies, the two committees having charge of the financial department, the conclusion may safely be reached that the School Board need fear no just criticism of the management of the appropriation intrusted to them for educational purposes.

The results of the plan adopted some few years ago for furnishing supplies to pupils are very gratifying. For many years previous to three years ago

the annual average net cost for supplying teachers and pupils with books, stationery, and drawing-materials required for school-work was about \$70,000 per annum; and by the last report of the Committee on Supplies it is shown that the average annual net cost for the past three years, after deducting the amounts collected, did not exceed \$20,000, — a saving in these items of \$50,000 per annum.

In addition to the amount saved to the city by this plan, the parents of the children who buy their books from the city save, annually, at least \$10,000, by obtaining them for 20 to 25 per cent. less than the prices they would be obliged to pay if they were required to procure them at the book-stores.

The net cost to the city for books and stationery furnished to pupils averaged about 35 cents for each pupil per year, during the past three years. This amount does not include the cost to the city for purchasing and delivering the materials furnished. Just what this additional cost amounts to it would be difficult to determine accurately. Some four or five years ago the School Board gave permission to the Committee on Supplies to contract, if they deemed it advisable, for doing certain work connected with their department; and, in accordance with the authority thus given, they entered into a contract for the term of five years, the price stipulated being \$12,000 per annum. By the terms of the contract not only were the purchasing and delivering of supplies required, but also a large amount of clerical labor, and the keeping in repair of the apparatus in the schools, which was to be examined twice in each year. What

proportion of the entire amount paid could justly be charged to the purchasing and delivering of supplies to pupils alone your committee are unable to decide.

While it must be admitted that the present *plan* for furnishing supplies has proved a success, it should be borne in mind that it is not necessarily a part of the plan that the work should be done by contract, as in work of this kind new requirements are constantly arising; and any change necessitating work not covered by a contract may put the city to additional expense, in order that it may be properly performed, — unless the contractor chooses to assume duties that cannot be required of him.

Of the total net expenditure incurred by the School Board for the past year, 92 per cent. was for salaries of instructors, officers, and janitors; and the balance, 8 per cent., was expended for fuel, gas, water, printing, supplies, and miscellaneous items. If, as is generally accepted, salaries are not too high, and the number of teachers employed not too great, it is difficult to see how any further reduction can be made in school expenses, as outside of salaries the margin for reduction is very narrow. Your committee are of the opinion that a comparison with the expenditures of other large cities would show that Boston spends a much larger amount for salaries, in proportion to the total expenditure, than others.

The City Council has the control of the expenditure for the building and repairing of school-houses. The average annual cost for the past thirty years for the erection and furnishing of new school-buildings has been \$192,793.64. As the city owns the land

and buildings, this is regarded as a special expenditure, and does not enter into the yearly cost per pupil as prepared by the City Auditor. After a school-house is completed, however, and turned over to the School Committee, the expense for repairs and keeping good the stock of furniture is charged to another appropriation made specially for that purpose, and under the control of the Committee on Public Buildings of the City Council.

The expenditures made under this head are included in making up the annual cost per pupil; and your committee, for purposes of comparison, submit herewith three tables showing the several rates according to the different expenditures. The first will show the amount expended by the School Committee for the past seven years for salaries alone; the second will show the amount expended by the School Committee for all purposes outside of salaries; and the third will show the cost of keeping in repair the various school-houses as incurred by the City Council. The three tables combined will give the cost of education per pupil as shown in the City Auditor's report.

The following table shows the amount expended by the School Committee for salaries of instructors, officers, and janitors, the number of pupils, and the cost for salaries per pupil for the past seven years: —

Year.	Expenditures. Salaries.	Income.	Net Expenditures. Salaries.	No. of pupils.	Rate per pupil.
1876-77 . .	\$1,346,238 86	\$21,221 57	\$1,325,037 29	50,308	26.34
1877-78 . .	1,290,891 96	29,315 63	1,261,576 27	51,759	24.37
1878-79 . .	1,246,218 63	31,739 19	1,214,479 44	53,262	22.80
1879-80 . .	1,236,853 01	23,254 53	1,213,598 48	53,981	22.48
1880-81 . .	1,242,853 01	26,006 63	1,216,846 33	54,712	22.24
188-182 . .	1,246,799 12	25,554 51	1,221,244 61	55,638	21.95
1882-83 . .	1,262,020 64	29,208 96	1,232,811 68	57,554	21.42

The following table shows the amount expended by the School Committee, exclusive of salaries, but including \$12,000 per annum paid since July 1, 1879, to the Supply Agent, as per contract, and the average cost per pupil: —

Year.	Expenditures. Ex. of Salaries.	Income.	Net Expenditures. Ex. of Salaries.	No. of pupils.	Rate per pupil.
1876-77 . .	\$178,940 87	\$777 46	\$178,163 41	50,303	3.54
1877-78 . .	164,795 78	793 62	164,002 16	51,759	3.17
1878-79 . .	159,428 97	406 35	159,022 62	53,262	2.99
1879-80 . .	179,998 99	25,835 75	154,163 24	53,981	2.86
1880-81 . .	170,910 95	47,864 40	123,046 55	54,712	2.25
1881-82 . .	146,171 07	43,789 57	102,381 50	55,638	1.84
1882-83 . .	151,791 02	44,069 60	107,721 42	57,554	1.87

It will be noticed from the above table that the cost per pupil for last year (\$1.87) was about one-half of what it was in 1876-77 (\$3.54).

The following table shows the amount expended by the Committee on Public Buildings of the City Council, exclusive of that for new school-houses, and the cost per pupil: —

Year.	Expenditures. Pub. B'ding Com.	Income.	Net Expenditures. Pub. B'ding Com.	No. of pupils.	Rate per pupil.
1876-77 . .	\$165,876 72		\$165,876 72	50,308	3.30
1877-78 . .	126,428 35		126,428 35	51,759	2.45
1878-79 . .	114,015 32		114,015 32	53,262	2.14
1879-80 . .	98,514 84		98,514 84	53,981	1.82
1880-81 . .	145,913 55	\$205 00	145,708 55	54,712	2.66
1881-82 . .	178,008 88	247 50	177,761 38	55,638	3.19
1882-83 . .	189,350 83	231 00	189,119 83	57,554	3.29

The above tables represent the cost of the public schools since the reorganization of the School Board in 1876, a period of seven years ; and they show that the average annual expense per pupil, during that time, was \$28.42.

For the four years previous to the reorganization the average annual expense per pupil was \$34.25.

If the average cost per pupil had been the same since 1876-77 as it was for the four years preceding that time the expenditures since the reorganization of the School Board would have been \$2,199,157.62 in excess of what they really have been. This large reduction in so short a time is an evidence that the School Board have managed the trust reposed in them by the citizens of Boston in a manner which entitles them to their confidence.

SALARIES.

According to the schedule of salaries for the school year 1877-78 there were sixteen grades, each with a different salary attached, in the regular teaching force of the High, Grammar, and Primary

Schools. Of this number the salaries of ten were fixed at the same rate for the first year as for subsequent years; four were fixed at a minimum rate for the first year, and the maximum for the second year, and the remaining two positions were third and fourth assistants in the Grammar and Primary Schools, the salary being \$540 for the first year, \$660 for the second year, and \$750 for the third and subsequent years. At the beginning of the school year in September, 1878, a change went into effect by which the several grades, with three exceptions, were placed on a scale with a minimum salary for the first year, and a gradual increase each year for five years until the maximum was reached, excepting in the case of junior-masters in High Schools. Their term of service covered a period of ten years before the maximum salary was reached. The change inaugurated that year has been from time to time extended, so that the salaries at present run as follows: Of the twelve grades, or positions now existing, three receive the same salary for the first as for subsequent years; three require a service of thirteen years before reaching the maximum; three arrive at the maximum in five years, two in six years, and the remaining grade, that of first assistant in High Schools, it has been voted to abolish when the present incumbents have retired from service.

As the number of years of service fixed for the several grades has been established at different times, and without regard to the system of salaries as a whole, it may be that just cause for complaint exists as to the equity of requiring such varying lengths of

service before the maximum is reached. For example, a junior-master is appointed at a salary of \$1,008 per annum. At the rate fixed his experience is worth \$144 each year to the city for a term of thirteen years, when he reaches the maximum, \$2,880. An assistant in a High School is appointed at a salary of \$756 per annum, and her experience is worth \$48 each year for thirteen years, when she reaches the maximum, \$1,380. A third assistant in a Grammar School is appointed at a salary of \$456 per annum, with an annual increase of \$48 for six years, when she reaches the maximum, \$744. It is not apparent why an assistant in the High Schools should be regarded as gaining experience for thirteen years, which is recognized by the city each year by increased salary, and a Grammar-school teacher be understood to attain the limit of her worth to the city at the end of six years.

The delicate machinery of the so-called automatic method of regulating salaries, perhaps from some inherent defects of principle, and, probably, sometimes from mistaken interference, has come to produce inequalities such as must be strikingly apparent to all acquainted with the facts. That a single pupil, more or less than one hundred and fifty, should, *per se*, cause a raising or lowering of salary more than \$600 per annum seems to leave too much to the mere machine, or to an interested incumbent, and no exercise of responsibility and sense of justice to the Committee on Salaries, whose consent to the change might better be required in every case.

So it would seem to be just, and at the same time

afford relief to that committee and the Board, that special reference and study of the subject of the scales and changes in them, in the light of the committee's experience of past operations, should be made, to the end that such a uniform scale and system may be adopted as will more nearly render equal justice. It would serve to remove the prolific source of petitions from teachers in different grades to be raised to a par with others.

The effect of every change of scale in any grade has been to excite a movement for an advance by groups and individuals "all along the line."

It must always be borne in mind that since 1876, — when the present form was given to the educational department of our city, — the system, its government and administration, have necessarily gone through processes required by a virtually new structure: such as a general and particular survey, new adjustments, testing, development, and a resulting gradual improvement as knowledge derived from examination and practical experience has enabled fit corrections and improvements to be made.

The formative period of the new organization has not yet expired.

The present framework, so compact, and adapted both to comprehensiveness and concentration of thought and effectiveness in plans and measures, has enabled the School Board and its subordinates, in a business-like way, to arrive at and provide for the best educational interests of the pupils.

Beginning by thoroughly visiting, inspecting, and supervising all the schools of every grade; and with

the personal knowledge thus acquired of the schools and of individual instructors, — the Board, applying themselves to reconstructing and remoulding methods and forces, has successively presented in each year's report, what has seemed a more matured, consistent, and better operating apparatus of instruction, founded on sound and better understood principles, under the charge of officials and instructors better known, and generally of approved competency.

While large scope has been given to the consideration of well-recommended theories of improvement in the art of teaching and ways of learning, some propositions of radical change have been tested, yet with a judicious conservatism; and whatever of value found in them has been availed of, and whatever has been always approved as fundamentally sound has been preserved.

A temporary exaggeration, in the Primary Schools, of the object-method of teaching gave ample trial of the principles of that art, at the same time that its practice occasioned alarm to educationists of the assumed orthodox school; as if there was danger of a superficial and pernicious innovation displacing the philosophical methods of all past time. The danger, if any there was, is past.

The supposed new method is rather a mode of impressing the beginner with the sense and utility, and a lasting recognition of the written word to be learned, and, by this knowledge and its interesting associations and influences, giving understanding and animation to the faculties of a child in learning spelling and language. This art was not unknown in the

practice of the best teachers, and not being fundamental, it, in fact, could not supersede or do more than assist and impart interest to the usual processes of learning, and it has no more than its proper place in modes of instruction.

The contention of various opinions has had the effect of attracting the attention and thought, and obtaining the judgment, of expert instructors throughout the country as well as of our Superintendent, Supervisors, and teachers.

Fundamental principles should always be mastered and kept in view, else propositions, which are in their nature only incidental or auxiliary, might be taken in a fallacious sense and allowed too much importance where a multitude of instructors have to be advised.

Hence the obvious necessity and wisdom of a Board of Supervisors, with a Superintendent at their head, incorporated by the Legislature as an integral feature in our department of instruction.

There being an impression in some minds that the Board of Supervisors is superfluous and unnecessary, the error ought, therefore, to be dispelled.

The idea sometimes expressed, that it is a system of espionage, and odious to the instructors, is not consistent with the intent of the statute, or of the School Board, nor with the facts.

What objections arose from the sensibilities of human nature while the Primary Schools, for reasons that were deemed judicious by the School Board, were removed from the jurisdiction and authority of the principals of the several Grammar School Districts, and placed in groups under individual supervisors as

principals, have ceased with the restoration of the Primary Schools of each Grammar District to their former relations and the reinstatement of the masters over them, with advantages gained during the temporary separation; and the harmony, coöperation, and mutual good understanding that now exist between the Board of Supervisors and the teachers are a satisfactory recompense.

As it is not business-like, practicable, or intended, that every member of the committee should perform the work of the inspection of the schools and of guiding as experts the professional work of teaching, so it would not be reasonable to abandon the charge of such important duties to the principals alone, and thus add to their already sufficiently numerous duties, compelling them to examine, aid, counsel, supervise, and secure the best results from the labors of both superiors and subordinates.

No merchant, proprietor, or trustee would leave to his employés themselves the examining and certifying of the accounts or works for which these subordinates themselves respectively are responsible.

What is universally deemed proper to be done in such cases, must needs be done properly and efficiently and up to the high standard for which the people of Boston pay most liberally.

It should be understood, therefore, that every principal courts the examination and opinion and counsel of expert and competent supervisors.

To say that the masters themselves are opposed to supervision or to a Board of Supervisors would be unjust. Their desire may be said to be, and it is the

care of the School Board to provide, that the supervision shall be most capable and efficient, by persons of superior scientific and practical knowledge in their profession. Some of their own number have been placed on the Board of Supervisors with satisfaction. All of them cannot be gratified in the same manner. At the same time it neither follows that the best masters would make the best supervisors, nor the best supervisors the best masters. Each office requires special vocation and fitness for its peculiar duties.

The best qualified opinions of the members of both bodies, and what are found to be most valuable and weighty according to means of knowledge and the best judgment, from each department, are what are always desired and due to the service.

This desideratum, it is hoped, has been substantially attained through the means taken by the Committee on Examinations in their revision of the course and programme of study, on consultation with the Superintendent and the members of the Board of Supervisors, and after obtaining the written opinions and suggestions of every principal on all matters involved in the previous course and programme.

The suggestions of the principals, substantially and in effect, have been adopted in the revision, so that, for some time to come, under a plan and directions approved with substantial unanimity, an era of good feeling in the forces and departments of instruction and supervision may justly be expected to prevail.

To secure the best school-work and results it now remains that all principals shall see that the measures

which they have had a voice in preparing shall be understood and put in practice by their subordinates, who will be expected to familiarize themselves with the directions in their natural sense, and not upon what is known as a method requiring "cramming" or "high pressure," to which our system is designed to be opposed.

The instructor who interprets the revised course and directions in the latter sense fails to rightly interpret the necessarily condensed language of the directions, and must needs be better advised, and encouraged to teach with the self-possession, calmness of nerve, and ease of command which always characterize the capable teacher, involving less hard work than the strained and excited manner, which is unnecessary and unprofitable in the present as in any other course. Fidelity in their superiors will render any misinterpretation inexcusable.

Thus, the Board of Supervisors, with the Superintendent as their president, now are not only inspectors and examiners, but a working council of approved experts, who study the best interests in tuition, and give the instructors competent advice and guidance derived from their observation, and communicated as may be thought best after consultation with the principals.

The functions of the Supervisors, now chiefly assigned by themselves as a Board, are laborious to an extent beyond proportion to those of any other officials in the school service.

Differences of opinion exist as to the necessity and usefulness of their giving so much time and effort to

particular details, and as to the advantages and increase of efficiency in instruction, which would ensue from giving instruction by lectures or otherwise, directly to the teachers, particularly in the elementary grades, with a view to correct faults that may have been noticed and to keep up the standard of teaching in all best approved methods.

Mere criticism in supervision, communicated to the members of committees only, can be of no value to the instructor not conscious of fault nor advised of the Supervisor's individual standard, which ought, in justice, to be made known to the teacher, and which it would seem could be best brought about by the concurrent judgments, tact, and coöperation of the visiting supervisors and the masters, under the authority of the Supervisors.

However, the present condition is progressive, and, at all times, genuine improvements will be in order, yet not any suggestion involving the destruction or impairing the utility of supervision, but rather such as always aims to increase its efficiency.

The Superintendent is more than presiding supervisor. To him belong the authority and responsibility of enforcing the regulations of the Board, and the legitimate instructions of its committees, throughout the schools. More than this, the direction of the Supervisors, outside of matters of council, is one of his functions. All the details of the knowledge he requires, relating to the condition and the working of the schools in every department, are brought to him as the immediate agent of the School Board. All such information, and the communication of it

are due from him to our Board. And the Supervisors are assistant superintendents in so far as they assist in seeing that the regulations and orders are carried into operation and effect.

While the principal of a Grammar School is the superior of all the schools and instructors in his district, the authority of the Superintendent over all the supervisors, masters, and other instructors, is that of supreme executive in the department of instruction, subject and responsible for his acts and efficiency to the School Board.

Incident to the office of the Superintendent, as central executive, would seem to belong something of the military superior's ready knowledge and functions, in relation to the entire body of the schools, and of the teaching forces under him, so as to enable him by a glance over the field, or at a roster of his permanent or temporary teachers, substitutes, and candidates, accurately to know and communicate the true condition, and the needs in every respect of the several schools; plan and enforce measures specifically required in the interest of the pupils; understand, and soundly judge of the capacity and utility of the instructors, individually and as forces; and, through the division committees, recommend their assignment wherever their services may be most efficient, as he, with all the aids at his service, should be best qualified to do.

It would also seem to be desirable that information should be each day obtainable, at the central office, of the places where the Supervisors may be found engaged in their work of observation or inspection, and

also of the names of unemployed substitutes, whose services may be had in time of sudden need of them.

From the Superintendent's official height of observation, the growing of particular sections of the city, and the need to provide and locate school-houses, can be early foreseen, and so kept before the attention of the sub-committees as to ensure the furnishing of school accommodations to the pupils as promptly as possible.

COURSE OF STUDY.

Progress in education, as in most other things in the world, is made through continual experimenting, and the records of each year show the results, good or bad, of some new plan introduced in some previous year. The new method, warmly approved and advocated by those whose opinion is entitled to consideration, needs the test of practice to prove its value, or its adaptation to the conditions under which it must be tried. If it stands this test, it takes its place as a permanent thing, and a new step is gained in the educational advance; if unsuccessful or only partially successful, either the good is retained, and goes to modify and improve the previous system, or the very failure teaches a lesson and helps in finding something better. Progress by failure seems always a slow and costly way of advance, but if we would get on at all we must take some risk; if we will not move until we are absolutely sure of success we are likely to stand still, if not for all time, at least until all others have passed us in the race.

It cannot be expected therefore that these reports,

which sum up briefly the history of the years as they pass, shall record only unbroken successes, and mark nothing open to criticism: but we may be well satisfied if errors are detected and rectified before serious evil has been done, and if we can see that we are on the whole making progress in the right direction, and gaining wisdom through past experience.

A feeling has prevailed with apparently a considerable portion of the community of late years, and has found frequent expression in various forms, that the pupils in our Grammar Schools are older when they graduate, yet are less well educated in essential branches, than in former years, and that time is largely wasted on studies of no real value. The statement of such views in the Board led to an order for an investigation of this whole subject; and the Committee on Examinations devoted much time to a careful examination into the present state of our schools, and a comparison of their condition with that of ten or twenty years ago. The report submitted by them shows gratifying results. It is proved by statistics, and by the testimony of those whose experience should render them the most competent judges, first, that the age of graduates is little if any greater than formerly; and, second, that they are as well, or better grounded in all essential and practically useful studies; while the proportion of those who complete the grammar course, and pass on into the High Schools is considerably increased.

A careful consideration of the course of study also showed no branches to be lopped off as un-

necessary, and no material changes to be desired in the arrangement of the course, or the distribution of time. The present plan seems such that at whatever stage a pupil is obliged to withdraw and give up his school education, the work up to that point is solid and valuable so far as it goes, and lays a good foundation for whatever further progress the opportunities of life may offer.

The criticism to which our public-school systems generally are most justly open is perhaps that there is not sufficient persistency in following out any course adopted, however good; they are liable to constant fluctuations, to sudden and sweeping changes which must hinder good work. Now, while no one will claim that our own schools are perfect, — for our ideal is not yet attained, and that ideal will rise just in proportion to our advance, — yet there seems to be nothing radically defective in our present plan of work. Our efforts therefore should be directed to following out this plan with steadiness, and striving by gradual modifications, such as experience may prove needful, to carry details to greater perfection.

To aid in accomplishing this the Board of Supervisors, under instructions from the School Committee, made a careful revision of the course of study, and recommended certain minor changes in the arrangement of various studies and the distribution of time and a more exact limitation and definition of the work intended.

TEXT-BOOKS.

Changes have also been made by the School Board in the use of certain text-books. The adoption of a different text-book in English History promises a degree of relief in that direction where pressure was most complained of. The book now in use, however, is very compact, and needs much additional illustration, and if teachers allow or encourage pupils to commit their lessons to memory only, as they may often be tempted to do, this study will be liable to become very dry and unattractive.

The spelling-book and mental arithmetic have been restored as text-books. Whether the replacing of books in these two branches in the hands of the pupils will be productive of good or evil, will depend chiefly on the way in which they are used. Spelling, as a useful accomplishment—to serve in correct writing—has improved greatly throughout our schools since the spelling-book was banished, and the children trained to observe the words they meet in their reading and other books. If with the return of the spelling-book should come also the old custom of studying columns of words either to recite orally or to write from dictation *as words*,—and this is always the danger, for it is the easiest and least troublesome method for the teacher,—the ground gained of late years in this direction will soon be lost. But if the recommendations of the Board of Supervisors as given the teachers in their report on the use of text-books in spelling (School Document No. 18, 1883) be followed, the new

spelling-book may be made useful. Everything which trains children to a perception of the force and power of letters in their various combinations is a help, both in writing and in speaking; and classification of words judiciously used may be made of great assistance to slow memories and untrained powers of observation.

Much the same may be said of the text-book on mental arithmetic,—everything depends on the use made of it. If it is not made to train pupils in habits of close attention, quick mental action, and prompt reasoning, it will be more likely to hinder than help in the study of arithmetic. Here again the Board of Supervisors, at the request of the School Board, have shown how the books may be used to advantage, in their report on the use of a text-book in mental arithmetic. (School Document No. 14, 1883.)

Time alone will show how wisely the teachers follow the suggestions offered, and how well they understand the objects to be attained by this study. Those who do comprehend this thoroughly will always do good work, whether with a text-book or without.

PRIMARY SCHOOLS.

The Primary Schools have not experienced any radical changes this year. The good effect of replacing them under the care of the masters of the Grammar Schools has been shown in various ways. There is a more intimate knowledge of their condition and needs than was possible when three, or even six Supervisors, with all their other work, had charge of

all the Primary Schools in the city, and various matters of discipline and administrative detail are better cared for now that there is an authority near at hand to be called upon in case of any emergency and to be responsible for the general management.

The plan of promoting from the Primary to the Grammar Schools by a system of uniform examinations seems productive of only good results. It aids by giving a common standard to strive for, — and serves to guide the efforts of teachers into the most approved channels, and to measure the success of those efforts.

The comparison of the returns from the various schools is very helpful also in showing where there are deficiencies in the general plan or method of instruction to be amended, or excellences to be approved and strengthened. The purpose of such comparisons can never, and should never, be to settle the relative rank or merits of different schools, but only to aid in drawing conclusions for the guidance of teachers and examiners, and for the improvement of the general system. The remarks on "Arithmetic in the Primary Schools," in the last report of the Superintendent, illustrate this point.

A valuable report was prepared early in the year by the Board of Supervisors under instructions from the Committee on Examinations, on the method of teaching reading in the Primary Schools, which calls for some notice. Since the introduction and too exclusive use of the so-called word-method in the Primaries, reading had in some respects declined, whether through inherent defects of the "method," or misapprehension and misapplication on the part of those

using it. The fact remained that children trained exclusively in this system too often passed from the Primary to the Grammar Schools without any adequate appreciation of the sound and force of letters, without any ability to spell new words, or to make them out for themselves. Brought face to face with some unrecognized words in their reading, they waited helplessly for the teacher to tell them what it was, having apparently neither power nor inclination to help themselves over the difficulty.

Another trouble was felt in the indistinctness of utterance and the carelessness shown with regard to terminal letters. It is of great importance that children should be trained from the start to clear and exact articulation, and their defects in this respect are apparent all through the schools, from the lowest Primary up. Whatever the faults of the "Leigh Method" and type, it had at least the good quality that it trained children to speak distinctly and to recognize and give the sounds of the language with much accuracy; and something valuable was lost when that was thrown aside.

The pamphlet prepared by the Board of Supervisors shows how the good points in both the word and phonic methods can be retained and combined so as to bring about the best results. The plan which will teach children to read well in *the shortest space of time* is the one to be sought for, and it is to be hoped that all our experiments, with their failures or successes, will finally enable us to discover the best possible method. It is certain that if our Primary teachers act upon the suggestions and directions

offered by the Board of Supervisors, the children who enter the Grammar Schools in three years' time will read far better and more intelligibly than those of the past two or three years.

One change in the arrangement of the Primary schools has been made in the past year; that is, the restoration of the semi-annual promotions. The wisdom of this step may admit of doubt, and must depend largely upon the manner in which the promotions are managed. No one wishes to hold back children who are ready for the Grammar Schools; but, if a return is made to the old practice of wholesale promotions in February, primary teachers laying out the larger part of their strength and time on a portion of the class to get it "ready for promotion," with the accompanying dislocation of all the lower grammar classes, to accommodate the new-comers, and change of teachers every half year in the primary and lower grammar classes, we shall be likely to find before long that this is one instance of progress in the wrong direction.

EVENING SCHOOLS.

The growth and success of the Evening High School are as marked this year as its warmest friends could ask. The whole number registered this winter has been 1,611.

The course of study has been enlarged this season by the addition of Latin, as an experiment; but it is introduced under such conditions as will ensure that it shall be taken up only by those who really want to learn it, not as a mere literary accomplishment, but for

practical purposes, and who will prove earnest students.

The Evening Elementary Schools are doing good work also, and their condition is steadily advancing. A great improvement has been made in this and former years in classification. Much of the work must necessarily be individual, and much personal care and instruction must always be given; but it has been found possible also to do a good amount of class-work, which is always stimulating and helpful. The unruly element which comes only to find amusement in creating disturbance has been almost entirely excluded by improved management, and much less of the teachers' time, consequently, is wasted in controlling noisy and troublesome pupils, and more of their strength goes to their proper work of instruction.

EXAMINATIONS.

Among the various duties of the Board of Supervisors, not the least important is that of examining candidates for the position of teachers in our schools. Boston offers sufficient inducements to enable it to draw into its service a large part of the best teaching force in the State. These examinations, therefore, are always fully attended, and make valuable additions to the number of experienced and skilful teachers available for school service. It needs to be borne in mind always, that if our schools are to improve and maintain high rank, we must be ready to avail ourselves of the best teaching capacity at our command. If we limit ourselves,

as is not infrequently recommended, to the graduates of our own schools, and employ only Boston talent, we must suffer the consequences of narrow exclusiveness. We shall discourage all candidates outside of the city from presenting themselves, and our schools will soon be crowded with young and necessarily inexperienced teachers, for whose errors and blunders, while they are acquiring the skill which comes only by practice, we shall be paying a double price, first in money, and then in the welfare of the schools.

Owing to the large number of resignations occurring yearly, the demand for competent teachers is always in danger of outrunning the supply, and it was thought advisable this year to make a change in the time of the examination of candidates. The examinations are now to be annual instead of biennial, and to be held in August; this month, for several reasons, seeming better than April.

In this, as in almost all their other important functions, the work of the Board of Supervisors is unending. Like that of the teachers, and of the Superintendent also, it is of a kind that never admits of being finished. It starts afresh with each new year, in increased rather than diminished amount; for the schools are always growing, and the work of supervision, which is valuable only as it is steady and vigilant, must grow with them.

MASON STREET OFFICES.

Early in the year, the endeavor, on the part of the City Council of the previous year, to divest this

Board of its right to possession of its building on Mason street, expressly remodelled, fitted, and dedicated, for school purposes, to the use of the business departments of this Board, was strenuously renewed by a committee of the city government, and the transfer of our occupancy, *nolens volens*, to the surrendered Savage school-house, on Harrison avenue, was, in terms, *ordered*, for the purpose of giving preference to the police over the educational department of our city. The presentation of the case in its legal and other bearings to that committee, by a special committee from this Board, succeeded in preventing such an error; and there is reason to believe that the fact is regarded as established, that, in law, premises once dedicated or appropriated for school purposes are not subject to dispossession at the will of any other body, without the consent of this board.

SCHOOL-HOUSES.

The unreasonableness, and attendant delays and disadvantages, of the mode now required, of providing accommodations for the schools, in the obtaining of convenient sites, and the erection of much-needed and properly-planned buildings, rendering it impossible to supply in time the public wants, have been forced upon our attention by the experience of the past year.

We would repeat, with double emphasis, the language of the last annual report on this subject, in the hope that the calling of public attention to the

apparent defects will lead to the enactment of an appropriate legislative remedy.

The present mode was left over from the former organization of the departments when the School Board was an annually elected appendage of the City Council.

The Board being since 1876 distinctively organized, and a more permanent body than the City Council, with full capacity and better adaptation for providing school-houses than the School Committee in its old form, and the immediate information of all details of the subject being within the particular ken and province of this department, there seems no good reason why the providing of permanent school accommodations should not be left solely to the School Board, the City Council, of course, having sufficient protective power in its right to give or withhold appropriations.

Whenever complaints exist that accommodations are not provided for pupils seeking admission to schools, it must be admitted that it is not in the power of our Board to supply the want in due season, by reason of the "circumlocution process" now necessary, which is beset with delays and hindrances, without any compensatory advantage or supposed safeguard.

From the time that the committee of this Board succeeds in proving to the Committee on Public Education of the City Council that a new school-house is actually needed, it ordinarily takes not less than two years to provide proper permanent school accommodations for the children, who, meanwhile, are tempora-

rily stowed unsatisfactorily, wherever room can be found, and often to the detriment of the health of pupils and teachers.

The facts of the past year in certain divisions, amounting to grievances, serve to show that the remedy—a change in the law—is desirable.

NEW DILLAWAY SCHOOL.

It is a subject of congratulation that at length the long-felt need of accommodations for the schools in the Dillaway District is supplied, to some extent, by the completion and the occupancy, in September, of the neat edifice of twelve rooms on Kenilworth street.

The desired appurtenance of a passage-way to and from Washington street for the convenience of the pupils, since recognized by a vote of the Board in favor of acquiring it, was originally mentioned by the Division Committee, and had a controlling influence in their advising the selection of the site. The failure of that important feature of the plan, and the fact that the new and capacious building is, already, not sufficient to accommodate all the pupils for whom it was demanded (colonies now having to be provided for outside) corroborate what has been stated as to the defects of the procedures now required for seasonably, suitably, and adequately providing permanent buildings for the schools.

TRUANTS.

The commendable work of the Committee on Truant-Officers reported to the board, November 27,

1883, in looking after the condition and interests of truant pupils transferred to the reformatory at Deer Island, with information as to unfavorable influences by which they are surrounded, deserves the continuous attention of the School Board, to the end that no time or opportunity may be lost in so placing them, as to protect them against contagion from the vicious, surround them with improving and elevating influences, and give them an industrial education.

We hope that the annual report for 1884 will exhibit the needed change as the fruit of the continued application to this subject of the School Board of the now ensuing year.

MANUAL TRAINING.

The increasing demand in the community for suitable manual education of children whose bent of mind or the circumstances of whose families cause them to leave school early (thereby losing the advantages of the studies pursued in the upper grammar classes) in order to acquire instruction in trades which will qualify them for self-support and aid in the support of their families, is about to be supplied, if the measures, plans, and action, adopted the past year, are practically and wisely directed and carried into operation in 1884.

A subject which has so long engaged the consideration and sense of responsibility of the thoughtful among the public and the school authorities must needs be very prudently inaugurated, in order to ensure success and lead to the desired larger beneficial developments.

That High Schools should be provided by requirement of the State for the mental culture of children, at an expense of about \$100 a year, *per capita*, while no tuition for boys has been provided in mechanical handwork, to supplement the teaching of industrial drawing, and as a counterpart to High School instruction, has seemed an anomaly and injustice.

The benefits which have resulted from teaching sewing to girls prove the utility and wisdom and feasibility of corresponding manual instruction for boys.

A chief hindrance to every movement in favor of its introduction has been the difficulty of planning a right beginning, in a way to justify the authorities in granting money for its establishment.

The proposition in 1880 to found, at once, a large workshop in accordance with the designs of the well-remembered inventor and mechanic, Mr. Samuel P. Ruggles, since deceased, who had intimated that after it was started he would contribute largely to its endowment, failed, because of the magnitude of its proposed beginning, and the fact that the sum of \$15,000, asked for, was deemed too large a venture for such an experiment.

Now, what is deemed the right initial plan has been devised, through introducing the learning of the elements of carpentry work by such members of the first class in the Dwight School as showed an aptitude for it, and whose parents approved of their application to it. The results, as exhibited in the interesting report of the master of that school, were satisfactory and encouraging.

The feasibility of teaching and of acquiring profitable learning in mechanical work, in conjunction with the usual studies, has pointed out the way in which manual training may be taught, with advantage, in several schools at the same time, and without interference with the regular school course.

The study and practical treatment of this subject, contained in the last annual report of our Superintendent, afforded an occasion to our Board to appoint a special committee for its further consideration, with a view to its incorporation in the scheme of instruction.

The report of the Committee on Industrial Education, which is the product of the opinions of the experienced president and professors of the Massachusetts Institute of Technology, in corroboration of those of the Superintendent and that special committee, so as to adapt them to our schools as they exist, is before the public, and its recommendations have been adopted.

Modifications of the course of study, if found to be necessary in order to prevent overwork or harmful interference, or otherwise to better adjust the branches of instruction, will be adopted, as experience may advise.

The City Council of 1883, among its last acts, made an unanimous special appropriation of \$2,500, in response to our application for defraying the expenses for one year of initiating and carrying into effect the plan authorized by the Board, in conformity with the report of its special committee.

Henceforward — for those who wish it — mental and manual education are to be blended together in

due proportions; and may there be realized a complete corrective to whatever significant and just reproach is involved in Wordsworth's tribute:—

“ Let the light mechanic tool be hailed
With honor; which, encasing by the power
Of long companionship the artist's hand,
Cuts off that hand, with all its world of nerves,
From a too busy commerce with the heart.”

During the past season, ere the harvest had come, our Board was bereaved of one of its youngest members, in the prime of his life and usefulness, by the death of Dr. James A. Fleming, after four years of faithful service on the Board, and in the first year of his chairmanship of the important Committee on Accounts. His intelligence, zeal, and assiduity, each year of his ripening, gave promise of many terms in performance of the trusts here, where acquired experience and just administration like his are especially to be valued. The tribute to him, contained in the resolutions passed by this Board, and the vote to attend his funeral in a body, expressed merited honor to his character and services.

We have to note the resignation of Mr. Samuel M. Weston, the Master of the Roxbury High School since its foundation, and a teacher, for many years previously, in the schools embraced in our present municipality. Generations of pupils owe him affection and gratitude, not only for the education and inspirations to a good standard, which their minds have received from him, but also for his personal interest in them, his wise counsel, and the friendly

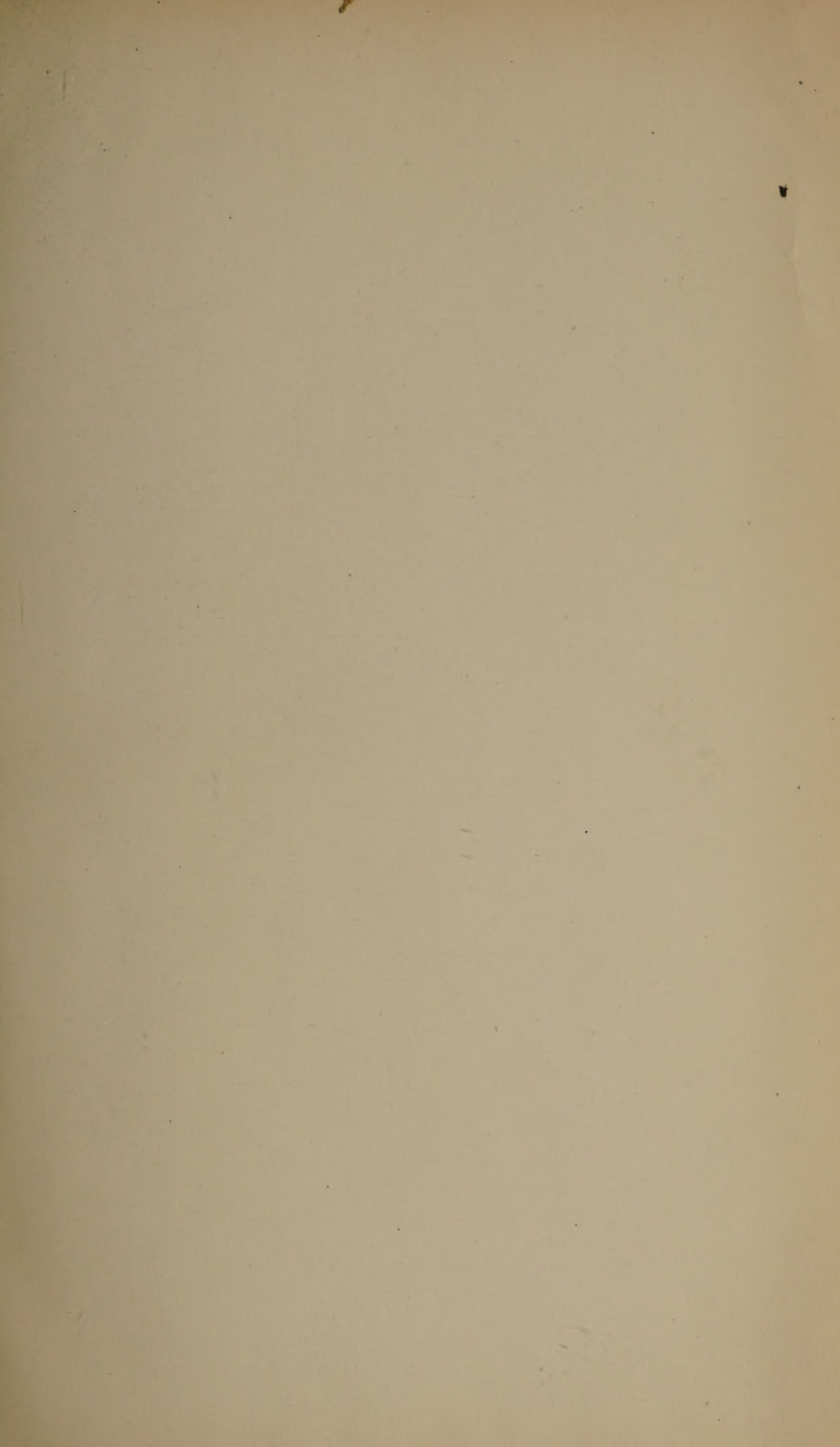
recommendations which he has oftentimes given to them for subsequent occupations. He is honored in their memories and in ours.

What progress has been made during the year just closed is left to the candid judgment of the public after a considerate examination of all the evidence.

This is confidently claimed, — that there has been no deterioration in the Public Schools of Boston.

It is ardently hoped that the year ensuing will show even a more intelligent and faithful administration of them.

JOHN C. CROWLEY, *Chairman*,
LUCIA M. PEABODY,
JAMES C. DAVIS.





FRAGILE

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